

Swales

Aug. 1

THE CONDOR

A Magazine of Western
Ornithology

Volume XVIII

July-August, 1916

Number 4



COOPER ORNITHOLOGICAL CLUB

CONTENTS

Breeding of <i>Tiaris canora</i> , and Other Notes from the U. S. Naval Station, Guantanamo Bay, Cuba (with three photos).....	Dr. T. W. Richards	145
Meeting Spring Half Way.....	Florence Merriam Bailey	151
On Bicycle and Afoot in the Santa Catalina Mountains.....	F. C. Willard	156
Birds Seen in the Valley of the South Fork of the Flathead River, Montana (with one photo).....	Norman deW. Betts	161
The Sahuaro Screech Owl as a Recognizable Race.....	H. S. Swarth	163
A New Ruffed Grouse, from the Yukon Valley.....	Joseph Grinnell	166
Migration and Field Notes from Fresno County, California.....	John G. Tyler	167
FROM FIELD AND STUDY		
Early Nesting of the Lutescent Warbler in Los Angeles County.....	L. E. Wyman	169
Decoys Used by Market Hunters in Slaughtering Band-tailed Pigeons.....	W. Lee Chambers	170
Nesting of the Western Robin in San Francisco County.....	W. A. Squires	170
The Western Robin Nesting in Golden Gate Park, San Francisco (with one photo by H. C. Bryant).....	Harold E. Hansen	170
A Recent Record of the Trumpeter Swan in the State of Washington.....	J. H. Bowles	171
Notes from Goleta, Santa Barbara County, California.....	Adriaan van Rossem	171
EDITORIAL NOTES AND NEWS.....		172
Proposed New Regulations for the Protection of Migratory Birds.....		172
MINUTES OF COOPER CLUB MEETINGS.....		174

Entered as second-class matter February, 1908, at the post-office at Los Angeles (Hollywood Station), California, under Act of Congress of March 3, 1879.

Issued from the Office of THE CONDOR, First National Bank Building, Hollywood, California

MEETINGS OF THE COOPER ORNITHOLOGICAL CLUB

SOUTHERN DIVISION: At the Museum of History, Science, and Art, Exposition Park, Los Angeles. Time of meeting, 8 P. M., the last Thursday of every month; or on the Tuesday evening preceding, when the last Thursday falls on a holiday. Take south-bound car from town; on Spring Street, the car marked "University", on Hill Street the car marked "Vermont and Georgia". Get off at Vermont Avenue and Thirty-ninth Street. Walk two blocks east to Exposition Park. The Museum is the building with the large dome.

NORTHERN DIVISION: At the Museum of Vertebrate Zoology, University of California, Berkeley. Time of meeting, 8 P. M., the third Thursday of every month. Take any train or car to University Campus. The Museum of Vertebrate Zoology is a large corrugated iron building situated on the south side of the campus immediately north of the football bleachers.



U

vo

'

a
a
l
t
t
l
s
c
n
c
l
i
t
l
a
n
t

Ag 1

THE CONDOR A MAGAZINE OF WESTERN ORNITHOLOGY.



Volume XVIII

July-August, 1916

Number 4

BREEDING OF *TIARIS CANORA*, AND OTHER NOTES FROM THE U. S. NAVAL STATION, GUANTANAMO BAY, CUBA

By DR. T. W. RICHARDS, U. S. NAVY

WITH THREE PHOTOS BY THE AUTHOR

THE COLLECTOR who selects the southeast coast of Cuba for his first trip to the tropics is apt to find his early impressions somewhat disappointing.

Steep hills rise abruptly from the water's edge, their gray sides seamed and gashed by erosion. Instead of waving palms and luxuriant verdure, such as one pictures in imagination, we find here caeti and thorny shrubs in endless variety. Upon their branches epiphytes crowd in rank profusion, while trailing vines bind the whole into thickets well-nigh impassable. In short, the terrain is in many places semi-arid and the vegetation distinctly xerophytic. Here and there clumps of palms struggle successfully for existence, but the general tone of the landscape is gray, rather than green, and closer acquaintance impresses one with the easy transition from leaves to thorns. First impressions, however, are proverbially misleading, and it is only fair to say that our traveller has no real cause for discouragement. In the first place he can probably find all the tropical luxuriance his heart desires by going a few miles inland, while even within the coastal region itself there is much of interest to the ornithologist. If I have somewhat emphasized the other aspects it is because there seems to be a rather prevalent impression that all tropical localities are much alike, whereas it is quite otherwise in fact, and a collector is apt to find plenty of variety without going far afield to look for it.

Guantanamo Bay lies on the south coast of Cuba, some 65 miles from Cape Maysi, the eastern extremity of the island. It is a beautiful sheet of water about eleven miles long and perhaps six wide at the most, with a comparatively narrow entrance, in fact one of those "bottle-necked" affairs so common on the Cuban coasts. The shore-line is tortuous and irregular in the extreme, be-

ing indented by an endless variety of inlets and bayous where one may cruise for days in a "kicker" and continually run across vistas that are new. In many places a dense growth of mangroves fringes the water's edge, forming a congenial retreat for pelicans, frigates and herons. To the botanist a mangrove swamp is said to offer points of peculiar interest; but the practical ornithologist, whose chief concern is to find a way through, is not likely to share his enthusiasm; the growth is absolutely impenetrable by boat, and locomotion over the slippery aerial roots sooner or later is apt to land one in the black and sticky mud below. These trees find their greatest development on the banks of the so-called Guantanamo River, a narrow, canal-like stream that flows along the west side of the bay and empties near the harbor mouth. Its quiet waters afford good fishing and plenty of alligators, while herons of several species frequent the banks. The local headquarters of this family, however, is a big swamp at the upper end of the bay beyond the limits of our reservation. When I last visited this locality, several years ago, I found a native family—wretched victims of "calentura"—established on its outskirts busily, and suc-



Fig. 40. VIEW ON GUANTANAMO RIVER, CUBA

cessfully, occupied in "plume hunting". Since then this traffic has diminished, not only from lack of material, but also, let us hope, from some enforcement of the excellent protective laws promulgated by the Cuban government.

While my various trips to this station, since our occupation in 1898, include nearly every month in the year my longer visits have usually been during January, February and March; consequently most of my observations pertain to late winter and early spring, the latter part of the dry season. Without attempting a complete or even provisional list of birds found on the Station the following brief remarks on a few that have seemed to me particularly interesting or characteristic may help to give some general idea of the local avifauna as a whole.

Pelecanus occidentalis. Brown Pelican. Pairs or single individuals seem to pre-empt certain small inlets and stick closely to their own particular locality. Still common at all times and doubtless breeds in the vicinity.

Fregata aquila. Frigate Bird. Formerly very common and probably bred on or near the Station. Now much less abundant, at least during the winter months when

the Atlantic Fleet makes this harbor its rendezvous. Those that remain soon get accustomed to the ships and are not at all shy. These big birds seem to fall easily to the gun. Upon one occasion I took a chance shot with no. 8's at one sailing high overhead and to my surprise he tumbled into the boat.

Herodiniidae. Away from the immediate vicinity of ships and houses one or more species are always in evidence. *Florida coerulea coerulescens* (Little Blue Heron) seems much the commonest, and *Butorides virescens maculata* (Antillean Green Heron) the most generally distributed. In running up the Guantanamo River I have observed small parties of the former keeping just out of gunshot by making repeated short flights ahead of the boat. They seemed loath to leave the stream, and sometimes kept this up for a mile or more before swinging up over the mangroves.

A few years ago Egrets and Spoonbills were fairly common, the latter occurring in good-sized flocks of a dozen or more; but during my last visit (1915) I saw no specimens of either species. While not harrassed within the actual limits of the reservation, there was doubtless much persecution in the vicinity outside. Being shy anyway they may not be yet as rare as they seem, simply avoiding the harbor while the ships are in port.

Zenaida zenaida. Zenaida Dove. Common in the chaparral, but shy and difficult to approach even at the nest. Two fresh eggs were taken from a nest in a low bush June 8, 1914, probably a late date. On March 27, 1915, while out with a friend, he brought me two eggs which, from his description of the bird, were almost certainly of this species, as the only others he might have found breeding locally were the White-winged and Carolina doves. This nest also was several feet from the ground.

Columbigallina passerina afflvida. Cuban Ground Dove. Very abundant and extremely tame. They probably begin to breed early, as I found a nest (six feet from the ground) with half-fledged young early in March.

Falco dominicensis. Cuban Sparrow Hawk. Common and much more tame than their northern relatives. I have walked past within twenty feet of one by the roadside. I was particularly anxious to find a nest of this species but never succeeded, though I once flushed two of the birds from a likely looking hollow stub. Like several other species, birds dissected in March failed to show development of the reproductive organs, and I am in doubt as to their breeding season.

Glaucidium siju. Cuban Pigmy Owl. Not uncommon among palms, and frequently abroad in the brightest sunlight. When I first heard its note I mistook it for that of a flycatcher.

Crotophaga ani. Ani. "Judío". Still common, but perhaps somewhat less so than formerly. Usually seen in small flocks of a dozen or less, their shrill cries and black dress making them much in evidence. Easily approached, and I have had no difficulty taking them with my little .44 calibre. Their well-known habit of "dribbling" along, so to speak, is very characteristic; that is, a flock seldom moves as a unit, but one bird flies ahead and alights, then others follow at intervals, either singly or by two's and three's, until in a short time they are all together again. I never found a nest, though I made a point of looking for it, and birds dissected during February and March did not seem to be breeding. Ordinarily these birds are seen along the trails and about the more open spaces, but they may retire to the denser scrub to breed.

Saurothera merlini. Cuban Lizard Cuckoo. This bird has the same shy and retiring habits as its allies farther north; keeping well to the chaparral it would seldom be observed were attention not attracted by its note. Its flight is slow and seldom prolonged more than a few yards, but once on the wing its enormous outspread tail makes it conspicuous enough. Usually seen in pairs and quite common.

Priotelus temnurus. Cuban Trogon. This exquisite bird I saw but seldom and then only in thick scrub where it is not easily distinguished in spite of its brilliant plumage. But I think it is really comparatively rare. The collector who can put up a good skin of this species with neatness and dispatch has skill and experience; the skin itself is like tissue and the feathers fall out in bunches at every touch.

Centurus superciliaris. Cuban Ladder-backed Woodpecker.

Xiphidiopicus percussus. Cuban Green Woodpecker. Both species fairly common wherever there is a sufficient growth of palms; not observed elsewhere. On March 30, 1915, I shot a male of the former species from a newly excavated hole in a palm stub some eight feet from the ground, but unfortunately the eggs had not yet been deposited.

The cavity was neatly made and chips of soft palm fibre at the bottom formed quite a comfortable bed for a woodpecker.

Todus multicolor. Cuban Tody. Common in the scrub, and ridiculously tame and friendly. One is usually first made aware of their presence by their curious clattering note, which seems much too loud for such a tiny body. By keeping quite still I have often had them hop up almost within arm's reach, apparently through sheer curiosity. The coloring is bold and beautiful.

Tolmarchus caudifasciatus. Cuban Kingbird. Very common. During March these birds seemed to be always in small groups of five or six individuals, and I saw no evidence of nesting up to the time I left last April. On June 8, 1914, I found a nest with small young, in the upright forks of a large cactus, and I have observed many old nests probably of this species in similar situations. Apparently May is the month for fresh eggs and I have just missed it in recent years.

Icterus hypomelas. Cuban Oriole. Fairly common in more open places, particu-



Fig. 41. BETWEEN THE TRAILS: U. S. NAVAL STATION, GUANTANAMO BAY, CUBA

larly among palms, where it builds its nest. It also frequents trees about houses and gardens like some of our northern species. On the 25th of March, 1915, I located a nest by watching a pair of the birds. The structure was entirely invisible from the ground, being attached to the under side of a dead and pendant palm frond. It is composed entirely of fine fibres of the same material, neatly and substantially woven in the usual icterine manner. On the above date the nest was empty but apparently ready for eggs, so I returned six days later expecting a set. No birds were about but there was one egg, which, to my surprise, was quite unlike that of any oriole familiar to me, being decidedly *Molothrus*-like in type. Although I had seen no cowbirds at any time, I suspected that it might have been deposited by one of these vagrants, but upon subsequent enquiry Dr. Richmond informed me that there was no cowbird in Cuba. It is experiences like this that make egg collecting a difficult matter in foreign countries.

Melopyrrha nigra. Cuban Bullfinch. This bird, which is not a true bullfinch, Dr. Richmond tells me, is found only in Cuba, though there is an allied species in Grand

Cayman. It did not seem to be common, though the black and white of the males is conspicuous enough to attract attention. A nest with three well-incubated eggs was taken March 18, 1915. Nest globular, with entrance in side; built in a dense thorny tree by side of trail through scrub; twelve feet from ground; male on nest. The nest resembles closely that of the Melodious Grassquit. The eggs are unlike any others known to me, although the description does not seem peculiar. Ground color yellowish white, spotted with lilac and brown, chiefly about larger end. Size .73x.53 inches.

Tiaris canora. Melodious Grassquit. This species finds a place on the A. O. U. List by virtue of its accidental occurrence on Sombrero Key, a tiny islet off the southern end of the Florida peninsula. As its eggs are not too common in collections, and little information regarding its nidification appears to have been recorded, I was particularly pleased to find this species generally distributed, and breeding abundantly on the reservation. My first set was taken March 9, 1915; and, as no fresh eggs were observed after the 18th, it seems probable that the breeding season, for the bulk of this species at least, is comparatively restricted. The nests vary little in structure, being globular in shape, with a side entrance, the whole affair about the size and shape of a Marsh



Fig. 42. ARBOREAL ANTS' NEST WITH GROWTH OF EPIPHYTES: CUBA

Wren's. On the whole, they are very neatly constructed, of fine grey fibres so compactly woven that they seem to last for several seasons. Old nests were so common and fresh looking as to make collecting difficult, for it was not usual to find a bird at home even when a nest held incubated eggs, and as they were always in thorn trees it was no small matter to investigate each one individually. The parents, in fact, seem to take little interest in their household duties; usually they appear after some waiting and then show no great concern about the operations of the intruder.

As the trees and shrubs in this locality have generally very small leaves the nests are very conspicuous objects where the ground is at all open; naturally most of mine were taken in such situations or along the trails, but I saw others in very dense scrub. With one exception all were in thorny trees, one particular species being generally selected. The exception noted was taken from the upright triple fork of a cactus growing in an open glade. The nest was about eight feet high and I hooked it out, eggs and all, with a forked stick. In some cases the nests were so firmly entangled among thorns that it was difficult to displace them intact, and still more difficult to remove the eggs;

I destroyed one fresh set in a vain attempt. The lowest occupied nest was six feet from the ground, the highest nearly twenty; probably the majority were not above twelve.

The full complement of eggs appears to be generally three. A good many incomplete sets were observed which for one reason or another could not be revisited, but of the nine actually collected there were seven three's, one incubated set of two, and another of four.

The eggs are white, more or less spotted with various shades of brown. In some cases the spots are pretty well distributed over the entire surface, but usually most thickly about the larger end. The set of four, recorded above, is particularly pretty, the color forming a wreath about the base of each egg, while the greater part of the surface is white. The sizes, in inches, of three specimens, selected from different sets, are as follows: .61x.48, .60x.47, and .57x.45. They are thus somewhat smaller than the average given by certain writers (e. g., Reed, .65x.50).

Mimus polyglottos orpheus. Cuban Mockingbird. This form, which occurs in Cuba, Grand Cayman, Jamaica and Porto Rico, has either increased of late on the Station, or it has become more sociable, for it seems much more in evidence than formerly, particularly about the houses. The breeding season must be very prolonged and perhaps more than one brood is raised. At any rate fresh sets were common the latter half of March when I also took young on the wing. The full complement of eggs seems to be only two or three, in about equal numbers, and in no instance out of many did I find more. But small sets are the rule for most species all over the tropics. Eggs, nests and habits generally do not appear to be peculiar.

Mimocichla rubripes schistacea. Gray-bellied Red-legged Thrush. While neither very common nor conspicuous, I cannot omit mention of this species on account of its singular grace and beauty. The first specimen I secured, some years ago, was apparently feeding on a bit of stony beach on the bay shore, probably a very unusual proceeding as I never afterwards observed one except in the dry thickets.

In conclusion it may be as well to remark that the oologist who makes a flying trip to the tropics is likely to have his work cut out for him if he expects to collect many eggs. Unless he is thoroughly prepared beforehand most of the birds will be new to him and their eggs and nesting habits may be quite unknown. He is thus at a great disadvantage in finding eggs and must use extra care in identifying them afterwards. It is not always easy to shoot a parent, and when one does so the bird is not infrequently lost in the dense vegetation. All this means much loss of time and physical effort. Personally, I believe in "going light" in the field. Of course where skins are a main object a gun is indispensable, and it is well to remember that birds shot in the morning will not always keep over until one gets home at night, and I have sometimes had to skin in the field.

For a day's hike after eggs I found the following outfit convenient. *Clothing*: Cotton underwear, khaki trousers, flannel shirt (nothing thinner will stand the thorns and prevent sunburn), straw hat (cork helmet or army "campaign" hat would be better headgear, but they are much in the way), leggings, and stout laced shoes. *Equipment*: Collecting gun. Marble's "Game Getter", with 18-inch barrels, appeals to me; it has two barrels, .44 shot and .22 rifle; with folding skeleton stock it carries well in a holster and its weight is a trifle. It is good for anything up to a crow and beyond that one can try the rifle. It shoots hard and my only trouble last year was having shot too large—no. 8; "dust" to 10's would be about right, as my small birds were blown to bits. Basket of woven palm leaf (locally an article which is common and cheap but exceedingly light and strong); "grub" (but not too much of it), and last, but *most important*, a canteen filled with good water. If the canvas is kept wet the contents will be drinkable in the hottest sun. Such an utensil drags at the belt and is awkward to carry, but one risks serious ill-

ness by leaving it behind. To the above I sometimes added a folding butterfly net, for it is well to take what comes along in out of the way places. Butterflies were individually common but I found no great variety. I suppose the season was too dry and the locality over-exposed to the strong trade wind.

In this season and locality the heat is greatly tempered by the trade wind by day, and at night one needs a blanket, though it is very different in humid places away from the coast. In Cuba there are no *poisonous* snakes (though I have seen some good big ones); but insect pests are at times somewhat too varied and abundant. In short there are minor drawbacks—and one should take reasonable precautions against illness; but in spite of all these the collector who longs for new fields and change of environment will find pleasure in both in the sunny island off our southern shores.

U. S. S. Maine, New York, February 4, 1916.

MEETING SPRING HALF WAY

By FLORENCE MERRIAM BAILEY

I

TEXARKANA", the porter announced to a curtained aisle on that April morning. Texarkana! May all men know by these presents just where they stand. We raised the shades to find that in the night winter had been left behind, spring had come in Texas, spring with its birds and flowers and green things growing. "The trees are all green!" a boyish northern voice exclaimed with fervor born of snowbanks passed in the Alleghanies. And so they were, all green, not with the dark heavy green of summer's fulfillment but with the delicate green of the first blush of spring promise, at whose delicacy you fairly hold your breath; a green that is almost white with the young hickory leaves, a tender pink with the oaks, making the woodland pools reflect a veritable fairyland forest. Blooming apple and peach trees gathered butterflies, leaf-crowned oak tassels swayed in the wind, and as the train passed through a stand of pine we breathed the velvety air of sulphuring pineries—nature was full of rich promise. All the warmth of the woods centered in the red bud, all the light of the woods focused in the snowy thorn and the dazzling white sprays of the dogwood. The ground flowers were blooming also—exquisite spring beauties, Baptisia, mandrake, and deep magenta phlox in luxuriant bunches.

Through the open windows came the spring songs of Tomtits, Cardinals, and Mockingbirds, and as if to furnish appropriate setting, there passed in rapid succession cotton fields with last year's bolls hanging, dark shanties flanked by outside chimneys, groups of pickaninnies, colored women in sun-bonnets driving mule plows, and oak woods in which small brown pigs rooted for acorns. The handsome red horse-chestnut blooming in the woods recalled Audubon's famous painting of the Carolina Wren. At a wayside station the squawk of a Bluejay came in through the window, while from a passing swamp came the call of the Maryland Yellow-throat, not to be heard in Washington for fully two weeks. The first palmettos and bunches of cactus were followed near the Trinity River by the first gray moss, in which appropriately enough Parula Warblers were singing, also two weeks ahead of Washington. The

white flower spikes of the yucca, the purple clusters of the wistaria, the green bunches of Baptisia and discs of mistletoe, scarlet painted cups and fields of solid yellow and purple gave pleasing diversity as the train passed through their varied habitats.

But the vivid green of spring to us from the brown north was perhaps the dominating pleasure of the journey, greatest near the close of the day when the slanting yellow light intensified the green of a meadow, made an oak fairly glow beside a dark juniper, and gave an exquisitely delicate green to an acre of mesquite whose finely cut leaves—most interesting fact in the study of the light relations of plants—lets the sun shine through so that the ground beneath bears a carpet of flowers.

At Austin, where we saw baled cotton in the depot, the birds were a striking mixture of northern, southern, eastern, and western species. We were greeted by the song of the Canyon Wren! Out of place as it seemed in the city, the clear, pure notes rang out as bravely as in a canyon, and the little canyon dweller might easily have strayed over from congenial ground in the first escarpment of the lower Staked Plains, three miles to the westward. Several of the birds were seen in the city. One that stood on a chimney top, its long bill, rounded back, and hanging tail silhouetted against the sky, sang loudly, swaying from side to side till a lordly Mockingbird flew over and calmly appropriated its perch. Mockingbirds were everywhere, singing with equal abandon from the chimney above us or the fruit trees close beside us. And well might such southerners feel at home, for among the flowers and trees of the city were numbered yucca, tamarisk, banana, fig, and pride of India. From one of the berry-bearing pride of India trees rose a flock of the cosmopolitan Cedar Waxwings, but they may have stopped for the berries of the mistletoe, also borne by the little tree. The more northern Turkey Vulture was in the sky with its southern relative the short-tailed Black Vulture, whose services as scavenger were evidently appreciated by the inhabitants, for when it was suggested that one suspected of eating a snake should be shot to settle the matter, the citizen addressed promptly replied, "You'd have the corporation after you if you did!" Purple Martins were already back from Brazil, their loud twitterings being continually in our ears. Less traveled Western Lark Sparrows were among the commonest birds of the city, singing loudly from the trees of the yards and streets, and a resident Cardinal flew into a bare tree only a few feet from us on the grounds of the State University.

These grounds presented a picture long to be remembered, for they were solid acres of blue-bonnets, low, deep blue lupins, among the choicest of the family, that made the air rich with their hyacinthine fragrance. In some fields the blue was toned to an exquisite color scheme by a mixture of pink verbena and vivid pink phlox outdoing their garden cousins in luxuriance. The lupins reached out to the edge of the big spreading live oaks, trees that interested us greatly as they bore a form of the so-called Spanish moss (*Tillandsia recurvata*), that instead of hanging in long veils grows in short tufts on the branches. As we examined it, a herd of Jerseys grazed under the trees with pleasantly jangling bells whose leisurely tinkling harmonized with the familiar *Pe-ter, Pe-ter, Pe-ter*, of the Tufted Titmouse which hunted among the branches, and the soft cooing of Mourning Doves which flew around through the trees with musically whistling wings.

On the University grounds one of the everyday birds was that theatrical

character, the Scissor-tailed Flycatcher, one of the birds that makes Texas peculiarly attractive to the bird student. To easterners, to whom the name Flycatcher calls up drab Phoebes, pensive Wood Pewees, plainly clad Kingbirds, and small olivaceous Empidonaxes hard to find in the green woods, the first sight of the Scissor-tail is little less than astounding. Nature, apparently tired of making Quaker garbs for retiring woodlanders cut a new pattern, on Swallow-tailed Kite lines, adding splashes of salmon to the striking black and white plumage, after which she endowed her creation with the skill of an acrobat, the dash and fire of a master spirit of the air.

Between its noisy acrobatic feats the Scissor-tail sits demurely on a telephone wire, apparently its favorite perch, though it looks much too large to perch on a wire. But the long scissors that open and shut so effectively during aerial displays keep a nice balance, and after all, though making such a brave appearance, *forficata* is mainly wings and tail, feathers and fire. Giving chase to Hawks and Caracaras—the Mexican Eagles used as the national emblem of Mexico—is every day sport, and no chance is lost to show who is lord of the neighborhood. A pair of the Flycatchers that I happened on had a nest in a low tree and the female was quietly brooding when a strange Scissor-tail appeared. The guardian of the nest waited to ask no questions but darted at him in fury. As the two chased through the air, to our amusement the brooding bird jumped up on the edge of the nest and stood looking after them. When the visitor had been driven from the landscape the lord of the nest performed a series of aerial evolutions as if to relieve his outraged feelings. The curious performances of these original birds entertained us all the way across southern Texas.

From Austin to San Antonio we were crossing their country, the mesquite end of the great prairie that extends from the Gulf to the Saskatchewan, and between cotton fields, flowers filled the spaces among the mesquite trees. In San Antonio as in Austin we found northward bound Waxwings and White-throated Sparrows still lingering, while Martins, Cardinals, Mockingbirds, and Jackdaws swelled the list of city birds that might well make northerners envious. But though San Antonio has become a bustling American city, Mockingbirds may still sing in the plaza by moonlight and many picturesque, softly tinted adobes on the outskirts keep the flavor of the old Spanish town and hark back to the days of the Alamo.

On our way from San Antonio to Corpus Christi we crossed more arid mesquite and cactus country where the wind comes from the dry interior and there is practically a northward extension of the Mexican flora and fauna. Large herds of cattle and men on the round up were seen, for most of the country was then, in 1900, given over to cattle range. At Beeville this arid, barren, mesquite plain changed to fertile coast prairie on which there were strips of scrub oak and a mixture of chaparral, with some new flowers and old ones in new combinations. A heliotrope-like purple Phacelia grew in masses along the railroad, and scattered among the white poppies a magenta Callirhoe gave rich color as the western light shone through its broad petals, while masses of yellow evening primrose added to the rich effect. A glorious prairie sunset ending in deep red and purple told that we had entered the humid coast belt.

But back from Corpus Christi Bay, where we stopped for a little work, the prairie cover was a mixture of mesquite, cactus, and wind-compacted chap-

arral. The flora was Mexican, strange thorny bushes being interspersed with brilliant flower masses. The fences were made by pitchforks with cactus pads, the pads laid along a line on the ground rooting and branching till they grow to high impenetrable fence walls that in their season become beautiful with large yellow tuni flowers. When spring comes on the prairies of Texas, even the fences burst into bloom.

It seems a world of flowers and birds, for as you go south you meet hordes of nocturnal migrants that have stopped to rest and feed by the way. Such a cosmopolitan assembly of birds! Resident southerners jostling wings with passing northerners on their way from their southern wintering grounds to their northern breeding grounds. On the prairie near Corpus Christi there were among others both the northern and southern Vultures, and such southerners as Harris Hawks, Desert Sparrows, Road-runners, Scissor-tailed Flycatchers, Jackdaws, Pyrrhuloxias, Mockingbirds, and Caracaras side by side with such northerners as Dickcissels, Lincoln Sparrows, Lark Buntings, White-crowned and White-throated Sparrows, Upland Plover, and Warblers. Swifts, Swallows, Nighthawks, Cowbirds, Hummingbirds, Gnatcatchers, Marsh Hawks, Kingbirds, and other Flycatchers, Bob-whites, Wrens, Shrikes, Orchard Orioles, and Vireos added to the confusion. In the absence of high trees the bushes and thickets seemed crowded. Not every seat was taken, to be sure, but you were impressed by the numbers of birds and surprised by the incongruous assemblies that confronted you in the bushes. Mourning Doves seemed to be everywhere in the brush, many of them apparently passing the time while their mates brooded. Lark Sparrows were in squads singing in the bushes or feeding on the ground, their white tail crescents flashing out as they flew, Grasshopper Sparrows were chirring everywhere, and Mockingbirds were singing and scolding and going about their daily matters. Once a whirl of birds passed, explained by a handsome white-rumped Harris Hawk. Now and then a brilliant Cardinal appeared on top of the chaparral and sang.

But the song that dominated part of the brushy prairie was a new one to my ear and became the song of songs to me, for it is to the southern prairie what the rare song of the Pine-woods Sparrow is to the moss draped pines of Florida, and the chant of the Hermit Thrush to the pointed firs of the northern mountains. The Cassin Sparrow! Even now, long years after, the name of that plain little brown bird comes with bated breath. How it recalls the first time it was heard! It was on an ordinary sunny Texas morning that I walked out into ordinary chaparral prairie in an every day mood, all ignorant of the existence of *Peucaea cassini*, when lo! from the brown bushes in front of me up sprang a little winged creature, a 'blithe spirit', an embodiment of the deepest joy of life, and with head raised and wings outspread, from a well spring undefiled poured out a song that held both the gladness of the blooming prairies and all the joy and hope of his mate on the nest.

While such intimate pleasures were to be experienced among the birds of the neighboring prairie, interesting hints of the surrounding water bird life, both resident and migrant, were obtained at Tule Lake to the northwest and also along the shore line adjoining Corpus Christi.

Tule Lake was alive with Grebes, Shovellers, Plovers, Sandpipers, and Terns, and a party of tall pinkish Avocets were wading out across the small waves, putting their long up-curved bills down delicately before them; while Stilts, all black above, all white below, stilted up on long pink legs, were going

through a variety of amusing antics and raising their black triangular sails over their backs. Rising from the lake flocks of Sandpipers would go whirling away dark before us, at a turn glancing white against the blue sky.

Not far from Tule Lake, at Priour's Ranch, the home of an old collector, specimens of rare southern birds were to be seen, among them skins of the Black Skimmer, Roseate Spoonbill, and most remarkable of all, Mexican parrots said to have been taken near Corpus Christi when severe southern winds were blowing up from below the boundary line. A barrel of wild cat and coyote skins was shown us and the skulls were seen lying around in the corners of the workshop. Live Brant of different species were in hen coops in the yard, and a small mother Tree Duck driven away by a Turkey whose society she had enjoyed was said to be dividing her time between the barnyard and the kitchen.

Beyond the ranch we were pleased to find eight Roadrunners, so quaint and curious that they are to other birds what the cactus is to garden plants. In some places along the way we saw them standing up on fence posts, crested heads and long necks raised and long tails flipped up enquiringly, for all the road to see. Here they were so tame they would not take the trouble to get out of sight. A few Snowy Egrets, Poorwills, small moth-like Bullbats, and Mexican Eagles added to the southern feeling. Picturesque Mexicans with two-wheeled mule carts carrying women with black rebozas over their heads, and men with peaked hats, together with pole houses thatched with cattails, reeds, or marsh grass, accented the Mexican flora and fauna.

The shore line from Corpus Christi Bay south afforded many novel sights. A line of pasture fence posts that extended thirty or forty rods out into the shallow water of the bay, were favorite perches of a variety of water birds. Three Cormorants, a Great Blue Heron, and two Brown Pelicans made up the row one day, the Pelicans making droll figures like china toys with heads erect and chins drawn in. Formerly, we were told, a thousand Pelicans nested on a small island twelve miles from Corpus Christi, but the colony had been entirely broken up. Only about half a dozen of the interesting birds were seen when we were there. In flight, with their big bills on their pouches, their great flapping wings and short tails, they were droll figures indeed, suggesting wise feathered magicians. Deserted nests of Great Blue Herons, big saucers of twigs set on bush tops, were seen, and on a low grass-covered island the Herons themselves were found standing. Along the shore were seen Sandpipers, Plovers, Willets, Yellow-legs, Stilts, Curlew, Turnstones, Gulls, and Terns, together with Kingbirds, Yellow-headed Blackbirds, Horned Larks, and Pipits—along the shore of the Gulf of Mexico, as I liked to say to myself. An historic spot below us made it seem more real, for here during the Mexican war one side buried a ship-load of flour and the other side on discovering it, dug it up! Sometimes the picture from the shore of the gulf was a monochrome, a gray sky over gray water touched with life by white caps blown in by the wind. On moonlight nights when the yellow globe filled all the sky with light down to the level prairie horizon, giving a wonderful effect of wide illumination, the harbor was especially beautiful and peaceful, with the silvery gleam of the moon on the water, and the soft lapping of waves along the shore.

(To be continued)

ON BICYCLE AND AFOOT IN THE SANTA CATALINA MOUNTAINS

By F. C. WILLARD

ABOUT nine o'clock on the morning of May 19, 1904, two bicyclists might have been seen leaving Tucson, Arizona, in the direction of the Santa Catalina Mountains. They were O. W. Howard and myself, our handlebars piled high and our shoulders well draped with the necessary paraphernalia for a trip into the region of giant cottonwoods, firs, and cactus to be found on the San Pedro slope of the aforesaid mountains.

A few nests of Palmer and Bendire thrashers tempted and delayed us somewhat, so it was noon before we reached Agua Caliente, eighteen miles from Tucson. Here we had to leave our wheels and shoulder our packs. A rancher named Vail served us luncheon, during which we listened to directions as to trails and short cuts which would bring us to Foran's camp, on the other side of the mountains and twenty-one miles distant. About one o'clock we set out, the hot sun beating down on our backs as we climbed the steep zigzag which leads to the top of the pass some three hundred feet above us. A few Cactus Wrens, Mourning Doves and Verdins were seen on the way to the summit. Here we passed the Indian postoffice, a relic of the Apaches. It was a pile of small stones, the accumulation of ages, sufficient to fill several good-sized wagon beds, each stone placed there by some Indian in passing to convey a message to some future passer-by. What messages they must have been! We were almost prepared to see a painted face peering at us from behind a boulder as Major Bendire once did not many miles from here. Scrub oak, various cactuses, and bear grass constituted the verdure up to the summit of the pass at this point. For some miles now the grade was very gradual, and scattering groups of large black oaks and Spanish bayonets were in evidence. A few Canyon Towhees and Arizona Jays were the only birds seen.

Passing the summit we began a steeper descent. Sycamore and ash trees began to appear along the bed of the canyon. Cooper Hawks were seen, Turkey Buzzards soared overhead, and in addition to the small birds previously seen, Vermilion Flycatchers appeared quite numerous in the sycamores, where we saw several nests. Howard had been through here a couple of weeks before, when he had collected some eggs of the Zone-tailed Hawk and had seen some Gray Vireos and Broad-billed Hummers. We kept eyes and ears open for the latter two species but without success. Intent on this we passed the dim trail where it branched off to cross over into another canyon, and were not aware of it until some miles beyond and it began to grow dark. Water was scarce, so we hiked back till we came to the first we could find, and hurriedly began to gather wood and select a soft spot for a bed. A long dead sapling made a foundation for an all night fire. Brush and logs were piled on top, after we had dragged this tree into place across a niche in the canyon wall, where it fenced us in. Lighting a fire at one end, we heated a can of beans (such a small one) and made as much of a meal as we could of this and two crackers apiece. Then, with our feet toward the fire we lay on the sand, my sleeveless coat for a cover, a flour sack with a few handfuls of leaves in it for a pillow. Poorwills began to call, a fox barked, and the fire burned bright and warm, making us feel as comfortable and drowsy as could be wished. The yip-yip-yee-e-e of a coyote sounded, and almost before the long drawn howl ended we were asleep. B-r-r-r, we awoke shivering. Our fire had

burned the length of the sapling and was about out. The sand was as hard as adamant. Too cold to lie still, we slipped on our shoes and hunted up some more wood. By the light of the fire we saw that the time was 2 A. M., so we tried to sleep again, and between dozes gathered more wood. At 4:30 we gave it up and began our second day with our other can of beans and crackers two.

An hour's walk farther down the canyon brought us to its junction with the one wherein lay the camp which was our destination. Up this canyon we went, paying little attention to the birds as we went. We found two nests of the Costa Hummingbird in low-hanging branches of sycamores, saw a pair of Western Gnatcatchers building in an old half-dead oak, and heard the song of several Gray Vireos in the hackberry trees which made a scattered fringe to the canyon bottom. About 10:30 we sighted the camp, and were soon talking to one of the owners. At the first word about dinner we eagerly offered our services as assistants. Frijoles, baking powder bread, dried apple sauce, and potatoes, backed by a huge pot of coffee,—how good they looked on the table. We could hardly restrain ourselves until the big chief, Foran, arrived, covered with muck from his prospect hole. A short rest after dinner and we climbed the hill with Foran to look at his prospect. Then we started prospecting on our own hook along the canyon bed. "Look here", said Howard, and I turned around and saw, not three feet from me, a beautiful Gray Vireo (*Vireo vicinior*) on her nest, hung from the lower branch of a mesquite. She sat very close for a few moments and then slipped off, revealing three white eggs. No other finds rewarded our search that day, but birds were present and the prospect promised great things to come. At the supper table we found Morris Chrisman, prospector, trapper and entomologist. His tents were near by, and his generous supply of blankets, spread under the moonlit sky, was a welcome change from our hard, cold couch of the previous night.

It was sunrise before we awoke. We were through breakfast by 6:30 and, with some biscuits in our pockets started down the canyon looking for Zone-tailed Hawks and Gray Vireos. Several nests of White-winged Doves were seen but not disturbed. Two more sets of Costa Hummer were found in similar situations to those of the day before. We heard some Arizona Cardinals (*Cardinalis cardinalis superbus*), and I located a nest at the extreme top of a hackberry covered with a grapevine. With some difficulty I secured it and the set of three fresh eggs it contained, the female scolding me well and staying close by. While I was thus engaged Howard wandered off and soon called that he had found another Gray Vireo, in a hackberry this time. He had secured it by the time I was down, and we packed the two sets with feelings of elation. Lucy Warblers (*Vermivora luciae*) were heard singing on all sides, and our next find was a nest of this species with four fresh eggs, in a natural cavity in a small stump. Farther down the canyon we passed an immense cottonwood from which Howard had collected a set of Zone-tailed Hawk (*Buteo abbreviatus*), after a daring feat of rope climbing. Below this a group of eight tall cottonwoods stood on guard at the opening of a narrow place in the canyon. Old nests of sticks in their lower crotches were almost beyond the reach of our best thrown stones. I hesitate to guess at the height of these giants but know that they were well over a hundred feet tall. I shall visit them again some day and take their measure and their pictures.

Below here some screaming Zone-tails kept us busy throwing stones at various nests, but the immense size of the cottonwoods wherein they were

placed made an uncertain climb unwise, and we could not pick out any nest that looked sure. Lunch time had long passed without our notice, it was now four o'clock, and we were six miles from camp. We ate our biscuits and started back. Another Arizona Cardinal was heard calling and its nest in a grapevine-covered hackberry yielded three more treasures. By six we were back in camp, and after supper we hit upon a plan by which Chrisman was to go to Reddington, some twelve miles down the canyon, on the San Pedro river, for hay and grain for his two horses, and chuck for the three of us, enough for five days. We planned to go across the foothills into another canyon, and then on to the summit of the range, three days to go, one on top, and then one to return by a shorter, steeper trail.

While Chrisman was gone the next day we hunted as before, though with rather poor success, as we found but one nest each of Gray Vireo and Arizona Cardinal. We met Chrisman about four miles down the canyon as he came back with his load, and returned with him to get our traps ready for an early start the next day. Our program was for Howard and myself to hunt as we went along, leaving the horses and camp to Chrisman. It was some twelve miles to our first camp. The extremely dry season made it necessary to pack both hay and grain for the horses, making with our bed roll and grub quite a load for each of the two, big animals which were Chrisman's pride.

The day was barren of oological results. We made our camp near an old adobe cabin where there was a good stream of water, and were on the road again before six the next morning. A short distance above camp stood a lone cottonwood with a large stick nest near its top. As we approached a Zone-tail left the nest and flew screaming away. I strapped on the climbers, and was not long in reaching the nest, some sixty feet from the ground. It contained two plain white eggs, incubation far advanced. The canyon we were now in was quite barren. Scrub oaks and other brush, with a few chollas and spanish bayonet interspersed, offered few nesting sites. One cholla was found to contain a nest with three eggs of the Palmer Thrasher. Eight miles above our previous night's camp we struck into the trail and followed it over a low ridge into another canyon. Here we found our guide preparing lunch. While he finished his preparations I made a quick search of the oak brush near by and found another nest of Arizona Cardinal. Our next camp was ten long miles up this canyon, over a steep rough trail. We were able to hunt but little and located only a nest of *Phainopepla* with incomplete clutch.

It was after seven o'clock when we approached our destination. A tall slender cottonwood stood close to a high cliff and held at its top a typical Buteo's nest, from which flew Madam Zone-tail in response to a well aimed stone. It was too late for a climb then so we put it off for the morrow. After a supper of jerky stew and frying pan bread, both delicious as prepared by our chef, we lay under the branches of a giant sycamore and listened to the whimpering of some Pigmy Owls in a nearby oak. Various other night noises reminded us of our bed on the sand a few nights before, but our comfortable blankets gratefully reassured us that we were not to repeat that experience.

We were up early again the next morning and investigated the oak where he had heard the Pigmy Owls, but found nothing. Various other trees with holes in them were examined with no better results, so we turned our attention to breakfast and after finishing it, helped Chrisman pack up and start, as we

were to reach the summit that day and the trail was a long, hard one. We then went down to the Zone-tail's nest, which Howard climbed. The female left the nest as he ascended, and alighted on a nearby hillside where she kept up an intermittent screaming, ably seconded by her mate who had come at the first alarm. The nest was seventy-eight feet from the ground, was composed of sticks with a few green leaves for lining, and contained two incubated eggs. This was a strictly characteristic nest.

We hurried on after Chrisman, and spent several toilsome hours climbing the trail. At one point it was so steep that he had to go up ahead with a rope and steady the horses to keep them from falling over backward as they climbed. After passing this place we were soon at the edge of the pines. Painted Redstarts greeted us, but were not yet nesting though it was late for them. This was due no doubt to the dry season, for they usually begin nesting in April. Some Long-crested Jays, Western Flycatchers, and several other common species were met with. In a small weed growing on a perpendicular wall of rock we found a nest of Broad-billed Hummingbird (*Cynanthus latirostris*) with two dried-up eggs. This was the only nest of this species found on the trip.

As we got up among the pine trees the needles made walking very difficult. They covered the trail with a coating as slippery as ice. On one zigzag portion three white-tailed deer jumped up, and, with amazing ease, tore away across the mountain side and out of sight. A little later a series of excited yelps attracted our attention, and four more deer went by, with the little yellow camp dog following. About four o'clock we topped the ridge and were rejoiced to hear that "Bear Wallow cabin" was a scant mile farther up. A beautiful pine and fir forest covered the whole mountain top with giant trunks, many of which were over four feet in diameter and a hundred feet tall. As we passed Bear Wallow spring a flock of about thirty Western Evening Grosbeaks flew up from their evening drink and scattered among the nearby trees. A hundred yards farther and we were at the cabin. The guide had already arrived and the horses were grazing nearby, hobbled and belled. A fire was soon going, and while supper was cooking we prepared the bunks. A goodly supply of blankets was already in the cabin, and we were glad to have the extra number as the air was very cold at this altitude of over 8000 feet.

We were up at daylight the next morning and out among the trees by sunrise. The Western Evening Grosbeaks were again at the spring when I went for a pail of water. A thin film of ice was on the shallow pool. Ruby-crowned Kinglets and Audubon Hermit Thrushes were singing in several directions. Starting out after breakfast, we soon had our attention arrested by a pair of Evening Grosbeaks fighting some Long-crested Jays. We located and collected their nest as I have recorded in a former article (see CONDOR XII, 1910, p. 60). Several completed nests of Audubon Hermit Thrush (*Hylocichla guttata auduboni*) were found, some a few feet from the ground in small fir trees, and one in a hollow of a rotten pine stump. None of them held eggs, and all were deserted subsequently as Howard discovered on returning early in June. Chestnut-backed Bluebirds and Arizona Juncos were fairly common, as were the Pigmy Nuthatches, of which we found several nests with young. Our greatest surprise was a family of Clarke Nutcrackers (*Nucifraga columbiana*), two mature birds and three fully fledged young almost as large as their parents. The young birds

were foraging industriously for themselves, but were given occasional bits of food by their elders. They were very tame, and allowed me to come within a few yards before flying. Warblers were quite scarce. We saw a few Black-fronted and Olive warblers but no Red-faced.

During our hunting we continually heard Kinglets (*Regulus calendula*) in the tops of high trees. We found one partly built nest, and a little later Howard saw a bird fly into a bunch of long moss, about sixty feet up in a slender dead fir tree. He came beaming, to report, and right after dinner we went up to the tree, which he struck with his hatchet. A little mite of a bird darted out of the moss and away. Howard climbed up and found the nest, completely hidden among the cluster of dead twigs overgrown with moss. With considerable difficulty he got the eggs out from among the twigs and into his mouth, and I counted eight as he made the transfer. Then he fastened a small rope to the branch and, cutting it off, lowered it to me. The nest was a beautiful object in its setting of grey moss and twigs. The eight eggs were fresh; the date, May 25. The next morning I saw a Kinglet gathering moss or grass from the ground and carrying it into the extreme top of a tall fir. We did not climb to this nest, however.

About three o'clock that afternoon we set out on our return trip. Our shoes were nearly gone and my shirt was little more than a neck band. Driving the horses ahead of us we hurried down, but even though we hurried it was after nine o'clock before we got into camp, too tired to do more than go to bed. The next morning we were up at 4:30, and, after some repairs to our shoes, and a hasty breakfast, started down the canyon to collect a set of eggs from the nest of a Gray Vireo we had previously discovered. We also took sets of Costa Hummingbird and Lucy Warbler. A set of Western Gnatcatcher previously discovered was still incomplete. We got back to camp early, and packed our nests in boxes, for Foran to bring out in his wagon, as he was going to Tucson the next day. We were glad to be relieved of such a load, as they made quite a large bulk altogether.

This day had nearly finished our shoes, so next morning, the 28th, the prospect of a twenty-one mile hike over a rocky trail made us realize the necessity of some further repairs. An old bootleg, a piece of canvas from an old tent, some nails and cord furnished the means, and lasted nearly half the trip back. The balance of the trail was negotiated very carefully. I found another nest of Arizona Cardinal before we started, and about a mile from camp a Zone-tailed Hawk left her nest in a small cottonwood, containing a beautiful set of two fresh eggs. This was evidently the second laying of a pair whose nest Howard had found on the first trip. A set of Cooper Hawk eggs was taken from a nest in a vine-covered oak. About three o'clock we reached our wheels, and then loafed along toward Tucson with the idea of arriving after dark. Strenuous is the word that best describes the ten days we had just passed. A hot bath and a good dinner made us both feel fit for our trip among the giant mesquites and cactus the next day, but that is another story.

Tombstone, Arizona, March 14, 1916.

BIRDS SEEN IN THE VALLEY OF THE SOUTH FORK OF THE FLATHEAD RIVER, MONTANA

By NORMAN de W. BETTS

WITH ONE PHOTO BY THE AUTHOR

DURING the summer of 1915 I made a pack trip of seventy-five miles up the South Fork of the Flathead River. Inasmuch as I do not find very many published references to the birds of that particular region, the following brief notes on the bird-life encountered may prove of interest and worthy of record. My companion, Dr. J. H. Walton, and myself left

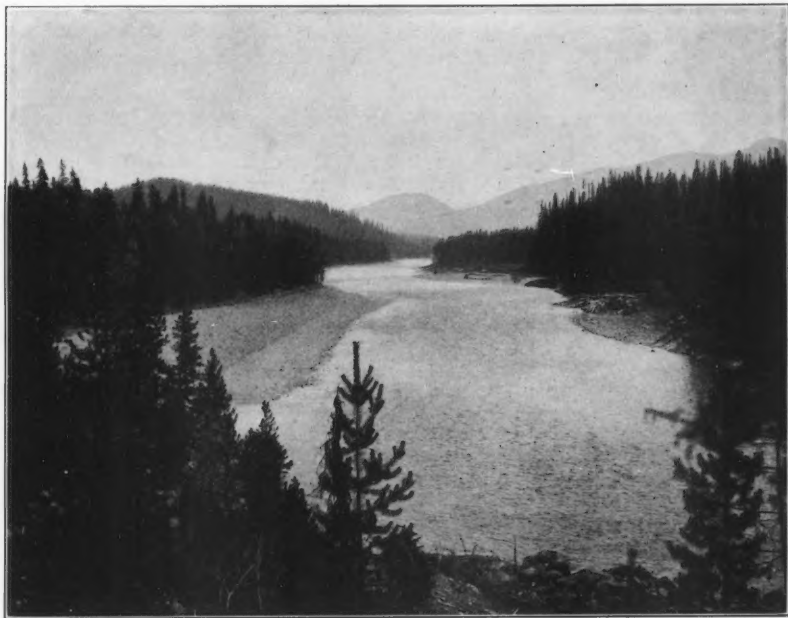


Fig. 43. THE SOUTH FORK OF THE FLATHEAD RIVER, MONTANA

Columbia Falls August 15 and returned September 9. The camp sites referred to in the notes are located as follows with regard to Columbia Falls: Riverside, 20 miles; Coalbank, 40 miles; Cabin Parks, 55 miles; Spotted Bear, 65 miles; and the Gorge, 75 miles. Conditions were not ideal for an intensive study of bird-life. Owing to the time of year birds were very quiet; while on the trail there was little opportunity to run down those not in clear view; and no collecting was done for the elucidation of subspecific identities. While quite familiar with the bird-life of the mountains of Colorado, this section was new to me, and I have not, therefore, given subspecific names where there appeared reason to doubt the form belonging in the region.

The valley of the South Fork is one of the large unoccupied forested

regions of the Rockies, and its avifauna has probably been little changed through human agencies. At Riverside the elevation of the river is about 3200, and at Cabin Parks about 3500 feet. The mountains enclosing the valley rise to about 8000 feet. Western larch and Douglas fir are the principal tree species, with a mixed stand of western white pine here and there, and with Engelmann spruce at the higher altitudes. Open burns and grassy mountain parks occur quite frequently, though the valley is essentially a forest covered region.

Mergus americanus. Merganser. Common in small flocks. Seen at Coalbank, Cabin Parks and Spotted Bear. One flock of seven appeared at camp, attracted by trout entrails thrown into the river. Their ability as swimmers was well demonstrated by the ease with which they made headway against the swift current of the river.

Helodromas solitarius cinnamomeus. Western Solitary Sandpiper. Two birds seen at Cabin Parks.

Actitis macularia. Spotted Sandpiper. Common along the river at all camps.

Canachites franklini. Franklin Grouse. The "Fool-hen" was quite common along the main trail and elsewhere.

Bonasa umbellus, subsp. Ruffed Grouse. The Ruffed Grouse was nearly as common as the Franklin, and found frequenting the same localities.

Buteo borealis calurus. Western Red-tail. One seen at Riverside.

Haliaeetus leucocephalus leucocephalus. Bald Eagle. One seen near Riverside.

Accipiter velox. Sharp-shinned Hawk. One found dead in the trail near Coalbank.

Falco sparverius, subsp. Sparrow Hawk. One seen at Hungry Horse Ranger Station near Riverside.

Pandion halliaetus carolinensis. Osprey. Well distributed along the river. Two old nests were noted.

Otus asio, subsp. Screech Owl. The familiar calls of screech owls were heard at Cabin Parks and Spotted Bear.

Bubo virginianus, subsp. Western Horned Owl. The hooting of Horned Owls was heard several times. Presumably *pallascens*.

Ceryle alcyon alcyon. Belted Kingfisher. Common all along the river.

Dryobates villosus monticola. Rocky Mountain Hairy Woodpecker. Common along the river trail, and noted at 6500 feet in Silver Basin.

Picoides arcticus. Arctic Three-toed Woodpecker.

Picoides americanus dorsalis. Alpine Three-toed Woodpecker. Both species of the three-toed woodpeckers were quite common in the vicinity of Coalbank where there was considerable bug-infested western white pine. Two of the Arctic Three-toed Woodpeckers were also seen at Cabin Parks.

Sphyrapicus varius nuchalis. Red-naped Sapsucker. One bird seen in a clump of aspen at Spotted Bear.

Phloeotomus pileatus abieticola. Northern Pileated Woodpecker. Quite common and well distributed throughout the valley.

Colaptes cafer collaris. Red-shafted Flicker. Common along the main trail.

Chordeiles virginianus henryi. Western Nighthawk. Common at all camps.

Swift. Swifts were seen flying overhead at Cabin Parks but were not identified.

Tyrannus tyrannus. Kingbird. One seen at Riverside. Flycatchers of any type were notably lacking throughout the trip.

Cyanocitta stelleri annectens. Black-headed Jay. A few were seen at Coalbank and Riverside. Not numerous.

Perisoreus canadensis capitalis. Rocky Mountain Jay. Common.

Corvus corax sinuatus. Raven. Common and very noisy. Usually seen close to the river.

Nucifraga columbiana. Clarke Nutcracker. Common and noisy.

Molothrus ater ater. Cowbird. One which was seen at Coalbank persisted in alighting on the backs of the horses.

Pinicola enucleator montana. Rocky Mountain Pine Grosbeak. Two seen in Douglas fir on Spotted Bear Mountain.

Carpodacus cassinii. Cassin Purple Finch. One seen at Coalbank.

Loxia leucoptera. White-winged Crossbill. One male and two females were seen

at Riverside. They were very tame, and twice alighted on our hats. Montana is somewhat south of their usual breeding range, but the date on which these birds were noted, August 18, seems rather early for migration.

Spinus pinus. Pine Siskin. Noted in two places, Cabin Parks and on Mt. Baptiste at 6500-7000 feet.

Passerculus sandwichensis alaudinus. Western Savannah Sparrow. A few seen in the grassy meadows at Cabin Parks, and at Spotted Bear.

Junco hyemalis, subsp. *Junco*. Small flocks of juncos were common as far as Cabin Parks. They closely resembled *mearnsi*, but may have been *montanus*, with which form I am not familiar.

Petrochelidon lunifrons lunifrons. Cliff Swallow. A flock was noted August 21 a few hundred feet below the top of Mt. Baptiste (8400 feet), at about timberline. Probably migrants.

Dendroica auduboni auduboni. Audubon Warbler. Small bands of this warbler were common, and formed the only indication of warbler migration.

Geothlypis trichas occidentalis. Western Yellow-throat. One seen at Cabin Parks.

Wilsonia pusilla pileolata. Pileolated Warbler. One seen near Spotted Bear.

Cinclus mexicanus unicolor. Dipper. Common all along the river, and heard singing several times.

Nannus hiemalis pacificus. Western Winter Wren. Common along the trail.

Certhia familiaris montana. Rocky Mountain Creeper. Noted here and there; not uncommon.

Sitta canadensis. Red-breasted Nuthatch. Common. Its note was one of the characteristic bird sounds of the valley.

Penthestes atricapillus septentrionalis. Long-tailed Chickadee. Common along the trail at least as far as Coalbank.

Penthestes gambeli gambeli. Mountain Chickadee. Noted at Silver Basin and Spotted Bear Mountain at about 6500 feet.

Penthestes hudsonicus hudsonicus. Hudsonian Chickadee. Two were seen on Spotted Bear Mountain in the Douglas fir forest at about 6500 feet.

Penthestes rufescens rufescens. Chestnut-backed Chickadee. A few noted at Coalbank in the same region frequented by the Long-tailed Chickadees.

Regulus satrapa, subsp. Golden-crowned Kinglet. Common and well distributed.

Planesticus migratorious propinquus. Western Robin. Seen only at Riverside and Spotted Bear.

Ixoreus naevius (meruloides?). Varied Thrush. One bird seen twice near Coalbank under excellent conditions for observation. It was carrying a grub on one occasion as though feeding young.

Madison, Wisconsin, April 16, 1916.

THE SAHUARO SCREECH OWL AS A RECOGNIZABLE RACE

By H. S. SWARTH

(Contribution from the University of California Museum of Vertebrate Zoology)

THE SAHUARO Screech Owl (*Otus asio gilmani*) described by the present writer some years ago (Univ. Calif. Publ. Zool., 7, 1910, p. 1), although admitted to the list of North American birds by the A. O. U. Committee, has been denied recognition by the latest monographer of the genus, Robert Ridgway, in his Birds of North and Middle America (part 6, 1914, p. 702, footnote). Here the conception of two subspecies of *Otus asio* existing in southern Arizona is objected to in no uncertain terms. The expression of such positive statements of fact and opinion, from so competent an authority, is certainly worthy of the most respectful consideration, and I must confess, upon first reading this criticism, to feeling decidedly unsettled in my convictions, and to wondering if perhaps my own conclusions had not been erroneous.

This feeling was measurably heightened by the receipt in November, 1915, from Mrs. J. W. Wheeler, of Tucson, Arizona, of a freshly killed screech owl, secured by her in the vicinity of her home on the outskirts of that city. This bird, taken within the range of *Otus asio gilmani*, was remarkably like *O. a. cineraceus* in appearance, in fact I was unable to see that it differed in any way from the one or two examples of that form that were then available for comparison. This fact, coupled with Ridgway's statement of his inability to distinguish between the two forms, while tending to shake my previous conviction of their distinctiveness, impelled me to look into the matter as thoroughly as circumstances permitted.

During the past winter Mr. A. B. Howell, of Covina, California, has devoted several months to field work in the vicinity of Tucson, his collection including a series of seven screech owls from that region. These specimens he has kindly loaned me. Mr. J. Eugene Law has similarly placed at my disposal nine Arizona screech owls contained in his collection. These series together with the specimens at the Museum of Vertebrate Zoology, give a total of thirty skins, from the following points: Chiricahua Mountains, 6; Huachuca Mountains, 3; Tucson and Fort Lowell, 12; Phoenix, 2; Blackwater, 2; points on the Colorado River, from Fort Mohave to Yuma, 5.

The most cursory examination of this assemblage is sufficient to show that there are two types of coloration exhibited, the darker, clearer gray *cinereus*, with coarser markings and extension of black areas, and the paler *gilmani* with much finer pencillings. A preliminary division of specimens according to color, and without consulting labels, was readily accomplished, but it was a somewhat disconcerting result to find in the *cinereus* group four skins from a point within the habitat of *gilmani*. These were, the one bird referred to above (Swarth coll. no. 10051, female, Tucson, Arizona, November 20, 1915), and three others from the Howell collection, all from Fort Lowell, near Tucson (no. 6205, male, December 26, 1915; no. 6245, female, January 4, 1916; no. 6299, female, January 24, 1916). These birds are, as far as I can see, indistinguishable in color and markings from specimens taken in the Chiricahua and Huachuca mountains, and if similar skins from lowland localities have been used by others in making comparisons I can well understand why the subspecies *gilmani* might be discredited thereby.

The point to be made here, however, is that these four are all winter birds, taken at the immediate base of a high mountain range, a range that should be, and probably is, inhabited by *cinereus*. The inference to be drawn is, as I believe, that they are individuals whose summer home lies at higher levels, that they are, in fact, examples of *cinereus* which have migrated downward into the range of *gilmani*.

Taking the evidence presented by this series as a whole, we have the following facts: There are two distinct types represented, *cinereus* from the higher mountains, *gilmani* from the valleys of southwestern Arizona. Breeding birds from either region are true to type in their appearance. Extremes of the *gilmani* characteristics appear at points farthest from the known range of *cinereus* (as at Phoenix and on the Colorado River). At one point at the margin of the habitat of *gilmani* (as I conceive it) there occur in winter examples of *cinereus*.

There are certain facts in the distribution of screech owls in Arizona which deserve to be emphasized. My conception of *Otus a. gilmani* is of a bird of the hot Lower Sonoran valleys, and of *Otus a. cinereus*, as one pertaining

to Upper Sonoran, oak-covered foothills and canyons. But I believe that a sufficient representation of specimens would show the respective ranges of the two subspecies to be capable of definition in other terms than those of life zones. In southeastern Arizona, the region of the scattered mountain ranges where *cineraceus* occurs, the intervening valleys and plains, of vast extent, are for the most part grass covered, or else with but a sparse growth of mesquite or larrea, in neither case supplying habitable surroundings for the screech owl. Farther west, from the Santa Rita and Santa Catalina mountains westward, the endless stretches of Lower Sonoran plains where *gilmani* is found are grown up nearly everywhere with the giant cactus, which supplies so many hole-dwelling birds with homes. In other words, in southwestern Arizona the Lower Sonoran zone offers congenial surroundings to screech owls, in southeastern Arizona for the most part it does not. In southwestern Arizona, Lower Sonoran is the only life zone represented, in southeastern Arizona the higher zones occur, with associational conditions acceptable to these owls. Certain parts of the foothill region of the Santa Rita and Santa Catalina mountains are where the widely different zonal and associational conditions of the eastern and western extremes find a meeting place. It is in this region that conditions occur that predicate the possibility of finding both of the subspecies of *Otus asio* here treated (as we see has been the case), or of finding specimens intermediate in their characters between the two extremes. There are specimens from Fort Lowell at hand that might be regarded in this light.

It may be said here that the Lower Sonoran areas of southeastern and southwestern Arizona, respectively, are widely different in their general aspects, and contain strongly contrasted assemblages of animal and plant life. There still remains to be accomplished, as a highly desirable piece of zoological work, a critical comparative study of the animal life of certain of these closely adjacent but faunally unlike valleys.

As to the characters of color and markings distinguishing *cineraceus* and *gilmani*, these are such as can not well be demonstrated other than by assertion. I can merely re-affirm that the screech owls of the *Otus asio* group from southern Arizona are of distinguishable types from two definable regions, exhibiting color differences readily apparent to the eye. In measurements it will be seen from the accompanying table that, although the differences are not great, the maximum of size is in *cineraceus*, the minimum in *gilmani*.

MEASUREMENTS IN MILLIMETERS OF *Otus asio cineraceus* AND *O. a. gilmani*
Wing Tail Bill
(from nostril to tip)

<i>Otus asio cineraceus</i> : 4 males from Huachuca and Chiricahua Mts., Arizona	154.7 (149.0-160.0)	79.2 (77.5-82.0)	10.7 (10.5-11.0)
<i>Otus asio gilmani</i> : 4 males from Fort Lowell and Blackwater, Arizona	150.0 (147.0-155.0)	74.2 (73.0-76.0)	10.5 (10.0-11.0)
<i>Otus asio cineraceus</i> : 4 females from Huachuca and Chiricahua Mts., Arizona	161.7 (157.0-168.0)	84.1 (82.5-86.0)	10.8 (10.2-11.2)
<i>Otus asio gilmani</i> : 4 females from Tucson, Phoenix, Colorado R., and Blackwater, Arizona	153.2 (150.0-156.0)	77.1 (74.0-80.5)	10.8 (10.5-11.0)

Berkeley, California, June 20, 1916.

A NEW RUFFED GROUSE, FROM THE YUKON VALLEY

By JOSEPH GRINNELL

(Contribution from the University of California Museum of Vertebrate Zoology)

SOON AFTER the establishment of the California Museum of Vertebrate Zoology, in 1908, there came into its possession the C. L. Hall collection of birds from Alaska and Yukon Territory. Two papers have already been based upon these (see CONDOR, xi, 1909, pp. 202-207, and CONDOR xii, 1910, pp. 41-43), but even so, the possibilities of further systematic interest were not by any means exhausted. There were contained in the Hall collections, among other things of note in this regard, a series of eleven Ruffed Grouse from the Yukon Valley, as now listed in the accompanying table of measurements. These were from the beginning recognized as differing materially from Ruffed Grouse available from other parts of North America. But until recently no opportunity has been had of comparison with topotype specimens of the already known race *umbelloides*, under which name Alaskan Ruffed Grouse have always been listed in literature.

The type-locality of *Bonasa umbellus umbelloides* (Douglas) is probably in Alberta, Canada, somewhere on one of the sources of the Peace River, latitude 54 degrees (A. O. U. Check-list, 1910, p. 140). A few weeks ago I was privileged to examine seven skins of the Ruffed Grouse in the U. S. Biological Survey collection in Washington, from Edmonton, Alberta, and six in the U. S. National Museum from Henry House, Alberta. These may be considered near-topotypes of true *umbelloides*, and they were found to differ en masse in certain significant respects from Yukon birds, so that it now becomes feasible to give the latter a separate name.

Bonasa umbellus yukonensis, new subspecies.

YUKON RUFFED GROUSE

Type.—Male adult, no. 4515, Mus. Vert. Zool.; Forty-mile (on Yukon River near Alaska boundary), Yukon Territory; November 5, 1899; collected by C. L. Hall; orig. no. 127.

Diagnosis.—Largest and palest of the races of *Bonasa umbellus*; nearest like *B. u. umbelloides*, but general coloration of light-colored parts of plumage more ashy, and pattern of dark markings finer.

Geographical Distribution.—As far as now known only the interior of Yukon Territory and Alaska. Occurs along the Yukon River valley down nearly to its mouth, as also in adjacent wooded areas west even into the Seward Peninsula (see Nelson, Rep. Natural History Coll. Alaska, 1887, p. 131).

Remarks.—As with the other subspecies of the Ruffed Grouse, *yukonensis* shows two color phases. Three out of the eleven specimens at hand have pale rusty tails; but even in this "red" phase the race is distinguishable from the corresponding phase in the other subspecies by paler tone of coloration. Typical *umbelloides* is still a gray bird, but its grayness is more leaden, and its browns and blacks are deeper. The extreme fineness of the intricate pattern of barring and mottling on the plumage is in *yukonensis* an appreciable character.

MEASUREMENTS IN MILLIMETERS OF ELEVEN SPECIMENS OF *Bonasa umbellus yukonensis*

No.	Sex	Locality	Date	Wing	Tail	Tarsus	Culmen
4509	♀	Forty-mile, Y. T.	Oct. 18, 1899	185	132	45.5	16.2
4505	♂	" "	Nov. 5, "	190	136	45.2	16.2
4508	♂	" "	Oct. 18, "	188	151	44.0	15.7
4511	♂	" "	Nov. 15, "	188	156	46.4	17.2
4512	♂	" "	Oct. 30, "	192	150	47.1	16.0
4513	♂	" "	Oct. 12, "	192	154	46.3	—
4515*	♂	" "	Nov. 5, "	195	155	48.3	17.1
4514	♂	Russian Mission, Alaska	Oct. 11, 1894	188	164	46.6	16.3
4510	♂	Fort Yukon, Alaska	Sept. 24, 1895	178	149	42.0	15.9
4507	♂	" " "	" " "	182	138	41.9	14.4
4506	♂ (?)	Yukon River (Alaska?)	192	156	44.3	16.7

*Type

Berkeley, California, June 18, 1916.

MIGRATION AND FIELD NOTES FROM
FRESNO COUNTY, CALIFORNIA

By JOHN G. TYLER

Podilymbus podiceps. Pied-billed Grebe. In Pacific Coast Avifauna No. 9, page 13, I recorded this grebe as possibly occurring in winter. It has since proven to be a fairly common winter visitant and also breeds regularly. Specimens of birds and eggs have been examined. I have found the Eared Grebe breeding but have not as yet detected it during the winter months.

Sterna forsteri. Forster Tern. This species is a common summer visitant to suitable places in the valley, but I had not observed the date of arrival in the spring until the past season, when large numbers were migrating northward in small squads averaging 7 or 8 birds each, on April 16 and 17, 1914. This was in the vicinity of Summit Lake.

Querquedula cyanoptera. Cinnamon Teal. This friendly little duck bred in considerable numbers at a great many points in the vicinity of Fresno, young of various sizes being seen all through May and June, 1915. The broods usually numbered four or five and only occasionally more, the largest seen being of ten very small birds. This is the only variety of duck of my acquaintance in which the males attend the females and young. In many cases the drake is more solicitous than his mate and shows great distress when the young are disturbed. It is seldom that both parents are not seen caring for the young.

Spatula clypeata. Shoveller. Several pairs of Shovellers nest each season around a willow-margined, but somewhat alkaline, pond near Riverdale. A female with 7 or 8 small young was seen on May 23, 1915, showing that the species nested later than some of the other ducks, as on the same day large floppers of *Dafila acuta* were noted.

Erismatura jamaicensis. Ruddy Duck. I have often thought there must be a rather large proportion of non-breeding birds among our summer groups of this species. Perhaps the Ruddy does not breed until it has attained the age of several years. At one pond, where about twenty of these little ducks remained all through the summer, I could not find a single nest, although the one patch of tules was searched repeatedly and persistently. At another small pond where three pairs were seen I was positive that only one nest was ever built. This contained four clean eggs on May 4, 1915, and the set had been completed by May 12 with the addition of two more eggs. Indeed, the nest was so small that it could not have accommodated more, and the weight of the six partly submerged the bottom of the nest which was built in the tules over water. All of the eggs were badly stained.

Lobipes lobatus. Northern Phalarope. This species was recorded in Pacific Coast avifauna No. 9, page 24, although the bird mentioned was not collected. I am now able to confirm the occasional appearance of this species and have a specimen in my collection taken May 24, 1915, along the Madera road, about halfway between that city and Firebaugh. Mr. J. E. Law and I discovered the bird at the edge of a small pond near the road, where it had evidently remained from necessity rather than choice, as one wing was nearly severed from its body. This injury was no doubt the result of coming in contact with the telephone wires overhead. The bird was a male in breeding condition and plumage although the withered appearance of the injured member indicated that the accident had occurred some time earlier in the season. How the bird had escaped predatory birds and mammals is a mystery.

Recurvirostra americana. Avocet. Avocets arrived early in the spring of 1914, several pairs being noted by March 20. April 20 I found a female with four young at least a week old. They were in a small pond near Helm. October 15, 1915, about twenty-five avocets, all in winter plumage, were seen in a shallow pond near Riverdale.

Himantopus mexicanus. Black-necked Stilt. The spring of 1914 showed a very early migration on the part of this, as well as several other, species. Five stilts appeared at a pond near Fresno on February 11, and four were seen at the same place on March 9. Early migration was followed by early nesting, and in one colony several birds were occupying nests on April 26. At one pond this species was still present on September 26, 1914; but a subsequent visit showed them to have all disappeared. The first *Himantopus* for 1915 was noted on March 11, and by the 21st of the same month they had become fairly numerous.

Gallinago delicata. Wilson Snipe. About an hour before sunset on June 8, 1915, Mr. Chas. E. Jenney and I observed a snipe perched on a "no shooting" sign that had been nailed to the top of a fence post on the Burleigh ranch about six miles south-west of Fresno. The bird was either asleep or engaged in profound meditation and we approached within fifteen feet before he twisted away across the overflown salt grass pasture. Although at a much lower elevation than most of the recorded breeding stations, it would not surprise me to learn that during favorable seasons an occasional pair of Wilson Snipe remains to nest among the Stilt colonies around the Sewer Farm.

Totanus melanoleucus. Greater Yellow-legs. This wader has proven to be a very common spring migrant, and possibly winters sparingly, as I have one record for February 19, 1912; but it occurs much more commonly during mid-April. Some flocks return very early in the fall and I noted quite an assemblage near White's Bridge July 5, 1915, associating with about an equal number of *Ereunetes mauri*.

Podasocys montanus. Mountain Plover. This interesting little plover had arrived on the plains near Firebaugh by September 11, 1915. Had not the Federal law intervened these birds would soon have disappeared forever, as their habits made them a very easy victim for hunters. The birds feed in loose scattered flocks, ranging over much ground, but when sufficiently disturbed all the members of a company take wing and form into a dense flock which, after beating rapidly back and forth for a few moments, usually settles again within a few yards of the intruder, a full hundred birds often occupying a space no larger than twenty feet in diameter. As they alight each bird flattens itself upon the ground where its protective coloration renders it all but invisible save for the winking of its very large eyes.

As one old resident stated, a favorite method of hunting was to drive with a horse and buggy among the scattered birds and cause them to take wing, whereupon the horse was brought to a standstill until the birds had again settled on the ground and in nearly every case this was within easy gun range. The hunter immediately "ground sluiced" them with one barrel just as they "squatted" and fired again as the survivors took wing.

My informant stated that he once killed sixty-five birds with two shots and this method very rarely netted less than thirty. I was informed that this plover was rated as the best table bird in this part of the State and that parties sometimes came from points as far away as San Francisco to hunt them. Verily, as my friend remarked, "they don't seem to be as plentiful as they were twenty-five years ago."

Lophortyx californica vallicola. Valley Quail. September 15, 1915, a female quail flushed from almost beneath my feet, and I soon found her nest with seven eggs which, from their clean, fresh appearance, were evidently the beginning of a late set. Locality

Selma, California. A female quail shot near O'Neal's, Madera County, on the opening day of the season, Oct. 15, 1911, was found, upon examination to contain well-developed eggs, the largest of which would probably have been ready to deposit within a very few days. Other quail shot on the same day had long since ceased to be in breeding condition.

Columba fasciata fasciata. Band-tailed Pigeon. Several residents of the mountain districts have reported pigeons as being quite common this winter (1915), all through the oak covered foot-hills. One man informed me that in former years an experienced hunter never failed to secure a full bag of pigeons in a day's hunt even though the birds sometimes became rather wary. He further explained that when a flock took wing from a tree, one bird remained in nearly every instance and by approaching slowly this lone bird could easily be taken. As flocks seldom flew far before again alighting, a certain amount of perseverance was the only requirement for accumulating good-sized "limits".

Buteo swainsoni. Swainson Hawk. Several large flocks of this *Buteo*, choosing a most inopportune time, were migrating southward through the valley when the shooting season for quail and ducks opened on October 15, 1913. Much expensive ammunition was worse than wasted on the low-flying hawks and many a hunter returned home firm in the belief that he had rendered a valuable service by killing several. And the farmers, too, instead of protesting, joined in the sport and in some cases organized automobile parties to hunt hawks out on the plains. Locating a number of these birds perched on the ground they would drive rapidly among them and slaughter them right and left with pump guns as they slowly took wing. Sometimes it is with a feeling akin to grim satisfaction that we note the ever-increasing horde of ground squirrels, pocket gophers and field mice!

Chordeiles acutipennis texensis. Texas Nighthawk. A single Nighthawk—a new arrival from the south—was observed near Firebaugh late in the evening of March 20, 1914, and twelve or more were noted circling over a city park in Fresno on October 4. The former is my earliest spring, and the latter my latest fall, record for this species.

Tyrannus verticalis. Western Kingbird. Latest fall record for 1912, September 23, for a single bird. For 1913, October 2, when two were seen. My earliest spring record is March 6, 1914, for a single bird near Sanger.

Petrochelidon lunifrons lunifrons. Cliff Swallow. A large colony was found nesting in an open cave among the lava caps on a mountain west of Friant, Madera County, last spring. On April 3, 1915, nearly all of the nests contained full sets of eggs, some, at least, being partly incubated. This is rather early nesting. I have never seen this species in the spring earlier than March 13 (1913). October 21, 1915, I noticed a large migrant flock of Cliff Swallows near Sanger.

Hirundo erythrogastra. Barn Swallow. My earliest date of spring arrival is March 4, 1914. Last spring (1915) they did not arrive until March 12, when two pairs were seen. The previous season they were quite common by that date.

Fresno, California, December 15, 1915.

FROM FIELD AND STUDY

Early Nesting of the Lutescent Warbler in Los Angeles County.—April 1, 1916, I found a nest of this bird containing six eggs, in Franklin Canyon, near Los Angeles. It was impracticable to collect bird, nest or eggs at that time; and four days later, on again visiting the spot, the nest was found destroyed and no sign of bird or eggs. There is no possible question as to the identity of the bird, as when I started it from the nest it "fussed" around me for ten minutes or more, a part of the time within eight feet of where I sat beside the nest. To make more certain, I moved away a few yards, when the bird returned to its eggs, and started a second time when my face was within three feet of the nest. Apparently this is a record for early breeding, as well as for the large number of eggs.—L. E. WYMAN, *Museum of History, Science and Art, Los Angeles, California.*

Decoys Used by Market Hunters in Slaughtering Band-tailed Pigeons.—On a recent visit to Paso Robles, San Luis Obispo County, I was informed how easily the Band-tailed Pigeon had been slaughtered by the simple device formerly used to decoy the Passenger Pigeon. The method was to fasten a dead or half-dead pigeon on a stick or wire in the top of one of the oak trees where the birds commonly congregated, the decoy being placed quite high where it would easily be seen. This decoy would lead flock after flock to the slaughter, the market hunter being able to kill all he wanted without moving from the tree.

I think that before there is once more an open season on the Band-tailed Pigeon it would be wise to have legislation enacted prohibiting the use of decoys, and thus in a measure guard against a repetition of this former disgraceful method of slaughter.—W. LEE CHAMBERS, *Eagle Rock, California*.

Nesting of the Western Robin in San Francisco County.—On May 31, 1915, I saw a male Western Robin (*Planesticus m. propinquus*) near the western portal of the Twin Peaks Tunnel. The bird had something in its beak which I took to be food for nestlings. On June 5 of the same year I saw another bird of this species near Strawberry Hill in Golden Gate Park. These observations led me to suspect that the Western Robin was nesting on the seaward side of the San Francisco peninsula. Accordingly in April and early May of the present year I made a somewhat thorough investigation of the St. Francis Wood region and of the territory around Strawberry Hill. These efforts were, however, without result.

On May 17, of the present year I was looking around the gardens on Sutro Heights when a male robin alighted within a few feet of where I was standing. A few minutes later a female appeared with food in her bill. I remained quiet until she flew to her nest in a Monterey cypress. As she alighted on the nest four or five young birds raised their heads and clamored for the food. The same day I saw another robin at the Chain of Lakes in Golden Gate Park.

I believe this is the first time the Western Robin has been found nesting in the bay region. The nearest station heretofore reported is, I believe, San Geronimo, Marin County, reported by J. and J. W. Mailliard. While the Western Robin has always seemed to be much more a bird of the wilds than its eastern cousin, may it not be that it is slowly changing its habits and seeking closer relationship with man?—W. A. SQUIRES, *San Francisco, California*.

The Western Robin Nesting in Golden Gate Park, San Francisco.—On April 16, 1916, while walking around the Chain of Lakes, in the western part of Golden Gate Park, San Francisco, my attention was attracted by a pair of Western Robins (*Planesticus migratorius propinquus*) which were carrying building material to a Monterey cypress about thirty feet from a small arm of North Lake. No attempt was made to find the nest at this time, for fear of driving the birds away. On April 20 the nest was located on a limb eight feet from the ground and almost overhanging one of the main boulevards. Dried grass was mostly used in the construction, with a little string and the usual mud plastering around the rim. The eggs had not been deposited at this time. On May 2 I again visited the nest, in company with Mr. H. C. Bryant, who took several photographs of it. It now contained three eggs well along in incubation. Four more uncompleted nests were found in the near vicinity. Remnants of a last year's nest were shown us by Mr. Jesse Klapp, the park game warden, who also informed us that to his knowledge robins have nested in the park for the last three years. On May 12 I found that the nest under observation had been robbed.

On May 15, a nest containing young, was found in a growth of Australian Tea Bush, bordering a bridle path. When visited again, with Mr. Klapp, on May 17, the young were found dead. We were unable to determine whether this had been caused by cold weather, or by the depredations of some animal. Later five other nests were located, of which two contained young, two were inaccessible, and the other was deserted.

There appears to be no other record of the nesting of the Western Robin near the coast south of San Francisco Bay. Why the pines and cypresses of Monterey County are not likewise attractive is difficult to understand. Doubtless food supply is the important limiting factor which comes into play in this case. Whether the increase of



Fig. 44. NEST OF WESTERN ROBIN IN GOLDEN GATE PARK, SAN FRANCISCO; MAY 2, 1916

conditions similar to those in Golden Gate Park will lead to the establishing of additional breeding colonies of robins, as has been the case with juncos, remains to be seen. —HAROLD E. HANSEN, *San Francisco, California*.

A Recent Record of the Trumpeter Swan in the State of Washington.—Reports and sight records of the Trumpeter Swan (*Olor buccinator*) have always been much more plentiful for Washington than actual specimens. Therefore, about three years ago, I was greatly interested to have Mr. Fred Edwards, our Tacoma taxidermist, report to me that an unusually large swan had been sent in to him for mounting. It was shot on, or about, November 9, 1912, the locality being Moses Lake, Douglas County, Washington. The sex was not ascertained, but the bird had not yet reached the mature white plumage. After comparing it with a number of Whistling Swans (*Olor columbianus*) that were brought in, both Mr. Edwards and I felt positive that it was a Trumpeter. The bird is now in the possession of Mr. George Willett, of Los Angeles, California, who writes me that he is perfectly satisfied as to its identity. Measurements, furnished by him, are as follows, in inches and hundredths: Length of wing, 25; tarsus, 4.12; middle toe and claw, 6.36; eye to tip of bill, 5.36; nostril to tip of bill, 2.55. Number of tail feathers, 22.—J. H. BOWLES, *Tacoma, Washington*.

Notes from Goleta, Santa Barbara County, California.—

Larus brachyrhynchus. A male in adult plumage taken November 27, 1915.

Totanus flavipes. A male of the year taken August 11, 1915. It was feeding with a flock of Western Sandpipers (*Ereunetes mauri*) in a shallow tide-water lagoon.

Steganopus tricolor. A male of the year taken August 1, 1915. It was likewise feeding in the same lagoon with a flock of Western Sandpipers. The mixed flock also contained a Baird Sandpiper (*Pisobia bairdi*).—ADRIAAN VAN ROSSEM, *Los Angeles, California*.

THE CONDOR

A Magazine of
Western Ornithology

Published Bi-Monthly by the
Cooper Ornithological Club

J. GRINNELL, Editor

HARRY S. SWARTH, Associate Editor

J. EUGENE LAW

W. LEE CHAMBERS } Business Managers

Hollywood, California: Published July 20, 1916

SUBSCRIPTION RATES

One Dollar and Fifty Cents per Year in the United States, payable in advance.

Thirty Cents the single copy.

One Dollar and Seventy-five Cents per Year in all other countries in the International Postal Union.

COOPER CLUB DUES

Two Dollars per year for members residing in the United States.

Two Dollars and Twenty-five Cents in all other countries.

Manuscripts for publication, and Books and Papers for Review, should be sent to the Editor, J. Grinnell, Museum of Vertebrate Zoology, University of California, Berkeley, California.

Claims for missing or imperfect numbers should be made of the Business Manager, as addressed below, within thirty days of date of issue.

Cooper Club Dues, Subscriptions to The Condor, and Exchanges, should be sent to the Business Manager.

Advertising Rates on application to the Business Manager.

Address W. Lee Chambers, Business Manager, Eagle Rock, Los Angeles County, California.

EDITORIAL NOTES AND NEWS

Attention of persons especially interested in game conservation is urgently called to the proposed new regulations for the protection of migratory birds, printed on this and following pages. Some significant changes will be noted when comparison is made with the regulations up till now in force. Criticisms and comments are invited by the Secretary of Agriculture; these should be forwarded at once.

With the departure of Mr. Walter P. Taylor to join the staff of the Biological Survey in Washington, the ranks of Pacific Coast ornithologists have lost a useful member. While Taylor is a relatively young man he has already shown marked ability in field work and in faunistic research. But the particular thing which has qualified his activity has been his concentration upon

the idea of wild life conservation. With a good equipment in general knowledge of natural history, and with a certain civic consciousness—these combined with energy and mental alertness—his influence as re-

gards game and bird protection has been far-reaching. It is needless here to recount the activities of the society which he was mainly instrumental in founding and carrying on, and the results which were with greater or less success attained. References to files of THE CONDOR will show many of his reports as Secretary of the California Associated Societies for the Conservation of Wild Life. It seems to us fortunate that Taylor has now entered government service where opportunities for just this kind of work would seem likely to offer in large measure. While for the moment we regret the loss of Taylor's influence here in the West, we can but congratulate him upon his advancement in position and opportunities.

The Cooper Club has sustained a loss in the death of Alphonse Jay, who died from injuries received in an automobile accident on May 25, 1916. Mr. Jay was one of the most active and enthusiastic of bird students in Los Angeles, and he will be sorely missed from the meetings of the Southern Division.

Not long ago a group of California members of the Cooper Ornithological Club were talking informally about the current trend and achievements in ornithology. Some way or another the conversation centered on the relative eminence attained to among living ornithologists, and after much debate the following five were selected as foremost in America in point of scientific output: (1) R. Ridgway, (2) J. A. Allen, (3) L. Stejneger, (4) W. Stone, (5) H. C. Oberholser. It was further concluded, that, as interpreters of our science, in other words, popularizers of ornithology, the following had achieved greatest success, directly or indirectly, in order of merit as named: (1) Frank M. Chapman, (2) Florence Merriam Bailey, (3) John Burroughs, (4) William Dutcher, (5) Louis A. Fuertes.

PROPOSED NEW REGULATIONS FOR THE PROTECTION OF MIGRATORY BIRDS

Pursuant to the provision of the act of March 4, 1913, authorizing and directing the Department of Agriculture to adopt suitable regulations prescribing and fixing closed seasons for migratory birds (37 Stat., 847), having due regard to zones of temperature, breeding habits, and times and lines of migratory flight, the Department of Agriculture has prepared and hereby makes public, for examination and consideration before final adoption, the following regulations:

Regulation 1. Definitions.

For the purposes of these regulations the

following shall be considered migratory game birds:

(a) Anatidae or waterfowl, including brant, wild ducks, geese, and swans.

(b) Gruidae or cranes, including little brown, sandhill, and whooping cranes.

(c) Rallidae or rails, including coots, gallinules, and sora and other rails.

(d) Limicolae or shore birds, including avocets, curlew, dowitchers, godwits, knots, oyster catchers, phalaropes, plover, sandpipers, snipe, stilts, surf birds, turnstones, willet, woodcock, and yellowlegs.

(e) Columbidae or pigeons, including doves and wild pigeons.

For the purposes of these regulations the following shall be considered migratory insectivorous birds:

(f) Bobolinks, catbirds, chickadees, cuckoos, flickers, flycatchers, grosbeaks, hummingbirds, kinglets, martins, meadowlarks, nighthawks or bull bats, nuthatches, orioles, robins, shrikes, swallows, swifts, tanagers, titmice, thrushes, vireos, warblers, waxwings, whippoorwills, woodpeckers, and wrens, and all other perching birds which feed entirely or chiefly on insects.

Regulation 2. Closed season at Night.

A daily closed season on all migratory game and insectivorous birds shall extend from sunset to sunrise.

Regulation 3. Closed season on Insectivorous Birds.

A closed season on migratory insectivorous birds shall continue throughout each year, except that the closed season on reed-birds or ricebirds in New Jersey, Pennsylvania, Delaware, Maryland, the District of Columbia, Virginia, North Carolina, and South Carolina shall commence November 1 and end August 31, next following, both dates inclusive: *Provided*, That nothing in this or any other of these regulations shall be construed to prevent the issue of permits for collecting birds for scientific purposes in accordance with the laws and regulations in force in the respective States and Territories and the District of Columbia.

Regulation 4. Closed seasons on Certain Game Birds.

A closed season shall continue until September 1, 1918, on the following migratory game birds: Band-tailed pigeons, little brown, sandhill, and whooping cranes, wood ducks, swans, curlew, willet, and all shore birds except the black-breasted and golden plover, Wilson or jacksnipe, woodcock, and the greater and lesser yellowlegs.

A closed season shall also continue until September 1, 1918, on rails in California and Vermont and on woodcock in Illinois and Missouri.

Regulation 5. Zones.

The following zones for the protection of migratory game and insectivorous birds are hereby established.

Zone No. 1, the breeding zone comprising the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Kentucky, West Virginia, Michigan, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, Nebraska, Kansas, Missouri, Colorado, Wyoming, Montana, Idaho, Utah, Nevada, Oregon, and Washington—31 States.

Zone No. 2, the wintering zone comprising the States of Delaware, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Tennessee, Arkansas, Louisiana, Texas, Oklahoma, New Mexico, Arizona, and California—17 States, and the District of Columbia.

Regulation 6. Construction.

For the purposes of regulations 7 and 8 each period of time therein prescribed as a closed season shall be construed to include the first and last day thereof.

Regulation 7. Closed Seasons in Zone No. 1.

Waterfowl.—The closed season on waterfowl, including coots and gallinules, shall be between December 21 and September 6 next following, except as follows:

Exceptions: In Maine, New Hampshire, Vermont, New York (except Long Island), Ohio, Michigan, Indiana, Kentucky, and West Virginia the closed season shall be between January 1 and September 15;

In Massachusetts, Rhode Island, Connecticut, Long Island, New Jersey, Pennsylvania, Washington, Oregon, Utah, and Nevada the closed season shall be between January 16 and September 30; and

In Illinois, Iowa, Nebraska, Kansas, and Missouri the closed season shall be between March 11 and September 15 and between November 16 and February 9.

Rails.—The closed season on sora and other rails, excluding coots and gallinules, shall be between December 1 and August 31 next following, except as follows:

Exception: In Vermont the closed season shall continue until the open season in 1918.

Shorebirds.—The closed season on black-breasted and golden plover and greater and

lesser yellowlegs shall be between December 1 and August 15 next following, except as follows:

Exception: In Utah the closed season shall continue until the open season in 1918.

Jacksnipe.—The closed season on jacksnipe or Wilson snipe shall be between December 16 and September 15 next following.

Woodcock.—The closed season on woodcock shall be between December 1 and September 30 next following, except as follows:

Exceptions: In Illinois and Missouri the closed season shall continue until the open season in 1918.

Regulation 8. Closed Seasons in Zone No. 2.

Waterfowl.—The closed season on waterfowl, including coots and gallinules, shall be between February 1 and October 14 next following, except as follows:

Exceptions: In Alabama, Arkansas, District of Columbia, Delaware, Florida, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia, the closed season shall be between February 1 and October 31 next following.

Rails.—The closed season on sora and other rails, excluding coots and gallinules, shall be between December 1 and August 31 next following, except as follows:

Exceptions: In Louisiana the closed season shall be between February 1 and October 31; and

In California the closed season shall continue until the open season in 1918.

Shorebirds.—The closed season on black-breasted and golden plover and greater and lesser yellowlegs shall be between December 1 and August 15, next following.

Jacksnipe.—The closed season on jacksnipe or Wilson snipe shall be between February 1 and October 31 next following.

Woodcock.—The closed season on woodcock shall be between January 1 and October 31 next following.

Regulation 9. Hearings.

Persons recommending changes in the regulations or desiring to submit evidence in person or by attorneys as to the necessity for such changes should make application to the Secretary of Agriculture. Hearings will be arranged and due notice thereof given by publication or otherwise as may be deemed appropriate. Persons recommending changes should be prepared to show the necessity for such action and to submit evidence other than that based on reasons of personal convenience or a desire to kill game during a longer open season.

MINUTES OF COOPER CLUB MEETINGS

NORTHERN DIVISION

APRIL.—The regular meeting of the Northern Division of the Cooper Ornithological Club was held at the Museum of Vertebrate Zoology, April 20, 1916, at eight o'clock, with the following persons present: Misses Davidson, Miller, Swezy; Mesdames Allen, Bryant, Ferguson, Grinnell and Knappen; Messrs. Anderson, Bryant, Cohen, Davis, Evermann, Grinnell, Hansen, Hart, Jacobsen, Joseph Mailliard, Stone, Storer, Swarth and Trenor. Visitors: Mesdames Stone and Swarth, Miss Ferguson and Dr. Waterman.

After the reading of the minutes of the two Divisions and of the Intermountain Chapter, the following were elected to membership: Pirie Davidson, San Rafael; Dr. Frank B. Davis, Oakland; E. N. Hart, Alameda; S. Griswold Morley, Berkeley; Webster Robinson, Los Angeles; Norman H. Wood, Ann Arbor, Mich.; Donald D. McLean, Coulterville; Ed. C. Jaeger, Palm Springs; and Edw. Howe Forbush, Boston. The following names were proposed for membership: Margaret S. Boardman, 3022 Clay St., S. F., by Harold E. Hansen; Joseph J. Webb, 519 California St., S. F., by Miss Amy E. Gunn; De Looch Martin, 1223 S. Washington Ave., Marshall, Tex., by Mr. Carriger; Thomas H. Benton, 2821 Van Buren St., Alameda, and Dr. Morton R. Gibbons, 3979 Washington St., San Francisco, by D. A. Cohen; Mrs. G. Hoag, Anaheim, by H. C. Bryant; Cora Smedburg, Felton, by Margaret Wythe; Dudley S. De Groot, San Francisco, by A. E. Price; Mattie Beth Morgan, Fort Worth, Tex., by J. B. Litsey, Jr.; Charles N. Black, San Francisco, Roland F. Hussey, Ann Arbor, Mich., Ralph E. Dodge, Santa Cruz, and Benj. F. Bolt, Kansas City, by W. Lee Chambers; Aldo Leopold, Albuquerque, N. M., and Mrs. P. H. Winston, chloride, N. M., by J. Stokely Ligon.

Mr. Grinnell then offered a resolution relative to the death of Professor Wells W. Cooke (see CONDOR, May, 1916, page 131). This was unanimously adopted and ordered spread on the minutes. Dr. Evermann gave some interesting personal reminiscences of Professor Cooke, telling of his methods of work and of his kindly hospitality.

Letters from the Pacific Division of the American Association for the Advancement of Science were reported by Mr. Storer, urging individual membership in that Association, with initiation fees remitted, and ask-

ing for papers for the San Diego meeting in August.

The Club then listened to a most entertaining account of Indian myths and legends regarding the birds by Professor T. T. Waterman, of the University of California. Many problems as to the creation and its details were settled, the raven playing a very important role in most of the stories.

Mr. Hansen reported Western Robins nesting in Golden Gate Park. Dr. Evermann gave an account of a trip into the mountains back of Ventura and Santa Paula to locate possible nests of the California Condor. He reported that about half a dozen Condors were seen in different localities, but no nests were found. Cactus Wrens and Yellow-billed Magpies, which were found commonly in certain districts near Santa Paula thirty years ago, were not seen on this trip. Adjourned.—AMELIA S. ALLEN, *Secretary*.

MAY.—The regular monthly meeting of the Northern Division was held at the Vertebrate Museum, May 18, 1916, at eight o'clock, with the following members and visitors present: Misses Crane, Culver and Wythe; Mesdames Allen and Knappen; Messrs. Carriger, Cohen, Evermann, Hansen, Squires, Storer, Swarth and Wright; visitors: Misses Moore and Wythe, Mrs. Swarth, Messrs. Benton, De Groot, La Jeunesse and Webb.

The persons whose names were presented at the preceding meeting were elected to membership. The following were newly proposed for membership: Benj. F. Davis, 2525 Piedmont Ave., Berkeley, by Mrs. Mary van E. Ferguson; Mrs. Chas. A. Field, 2547½ Piedmont Ave., Berkeley, by Mrs. Chas. S. Newhall; Mr. H. V. La Jeunesse, 1340 Broadway, Alameda, by Dr. H. C. Bryant; Mrs. M. E. Lombardi, 2331 Le Conte Ave., Berkeley, by Mrs. J. T. Allen; Mrs. Calvert Meade, 202 E. Twelfth St., Oakland, by Mrs. D. W. de Veer; Mr. Chas. T. Vorhies and Mr. T. K. Marshall, Tucson, Ariz., by Mrs. J. W. Wheeler; Miss Ella Jeremy and Mr. James Anthony Mullen, Salt Lake City, by Mrs. A. O. Treganza; Miss Cordelia Johnson Stanwood, Ellsworth, Me., and Mr. John D. Bliss, Santa Monica, Calif., by W. Lee Chambers.

Mr. Storer then read a chapter from the manuscript of the "Game Birds of California", dealing with the Mourning Dove, in which was given a summary of all available data as to the life-history of that species as found in California.

Mr. Squires reported Robins breeding at

Sutro Heights in San Francisco, and Mr. Wright established the right of the Willow Goldfinch to be considered a permanent resident in Berkeley. Adjourned.—AMELIA S. ALLEN, *Secretary*.

SOUTHERN DIVISION

MARCH.—Meeting of Southern Division called to order on the evening of March 30 by President Miller. Minutes of February meeting read and approved, followed by reading of the minutes of the other divisions. Present: Messrs. Miller, Willett, Lane, Chambers, Cox, Brown, Holland, Little, Law, Robertson, Daggett, Zahn, Wyman; Mesdames Robertson, Law and Harmon; Miss Little. Visitors were Messrs. Clark and Greenfield, and Miss Fanny Ford.

On motion of Mr. Robertson, the Secretary was instructed to cast the affirmative ballot of the Club admitting to membership the following persons: Webster Robinson, Los Angeles; Norman A. Wood, Ann Arbor, Mich.; Curtis Wright, Jr., Berkeley; H. W. Daniels, Claremont; Edna A. Hannibal, San Jose; Harold E. Hansen, San Francisco; Donald D. McLean, Coulterville; Edmund C. Jaeger, Palm Springs; and Edward Howe Forbush, Boston, Mass.

New names presented, to be voted on at the April meeting: Mrs. G. B. Hoag, Anaheim, by H. C. Bryant; Miss Alice F. Crane, San Francisco, by S. B. Culver; Mrs. Chas. S. Newhall, Berkeley, by Mrs. J. T. Allen; Miss Augusta H. Blanchard, by S. B. Culver; Cora Smedburg, Felton, by Margaret W. Wythe; Dudley S. DeGroot, San Francisco, by A. E. Price; Mattie Beth Morgan, Ft. Worth, Tex., by John B. Litsey, Jr.; Robert L. Paschal, Ft. Worth, Texas, by John B. Litsey, Jr.; Chas. N. Black, San Francisco, by W. Lee Chambers; Chas. W. Michael, San Francisco, Roland F. Hussey, Ann Arbor, Mich., Ralph E. Dodge, Santa Cruz, and Benj. F. Bolt, Kansas City, by W. Lee Chambers; Wm. C. Jacobsen, Berkeley, by J. Grinnell; Aldo Leopold, Albuquerque, N. M., and Mrs. P. H. Winston, Chloride, N. M., by J. Stokely Ligon.

A communication from the Pac. Div. of the American Assn. for the Advancement of Science, urging Cooper Club members to join, was read. Pres. Miller stated that he had received a letter also from the same source, relative to a meeting to be held in August in San Diego, as to whether the Cooper Club wished to participate in the program, etc. Enthusiasm on the subject was lacking and the matter was laid on the table.

The Business Managers' report for 1915 was then presented by Mr. Law, who in a brief summary showed a very gratifying condition of the Club's finances. The Club is deeply indebted to Messrs. Chambers and Law for their painstaking labors, and is to be congratulated in having these gentlemen for its business managers.

Then followed a most interesting and instructive address by Dr. Miller on "Fossil Birds of the West Coast", after which Mr. Willett spoke briefly regarding birds at Roosevelt Lake, Arizona. Adjourned.—L. E. WYMAN, *Secretary*.

APRIL.—The regular monthly meeting of the Southern Division, Cooper Ornithological Club, was held at the Museum of History, Science and Art, the evening of April 27, 1916. President Miller was in the chair and the following members present: Messrs. Daggett, Owen, E. J. Brown, W. W. Brown, Holland, Colburn, Chambers, Robinson, Law, and Wyman; Misses Atsatt and Swift. Visitors were Miss Leighton, Mr. and Mrs. Atkins, and Mr. E. E. Harriman.

Minutes of the March meeting were read and approved, followed by reading of the March minutes of the other divisions. On motion of Mr. Law, seconded by Mr. Chambers, the persons whose names were read at the preceding meeting were elected to membership. New names presented were: Chas. T. Vorhies, Tucson, Ariz., and T. K. Marshall, Tucson, Ariz., by Mrs. J. W. Wheeler; Miss Ella Jeremy, and James Anthony Mullen, of Salt Lake City, Utah, by Mrs. A. O. Treganza; Miss Cordella Johnson Stanwood, Elsworth, Maine, and John D. Bliss, Santa Monica, Calif., by W. Lee Chambers.

Pres. Miller announced that an ordinance, sponsored by the Audubon Society, was about to be presented to the City Council, providing for the licensing and belling of cats. He stated that the executive committee of the Cooper Club had endorsed the movement and asked for approval of the members present, which approval was unanimously given.

On motion of Mr. Law the following resolution was adopted: **RESOLVED**, that in the death of Professor Wells W. Cooke, whose long years of patient labor have added so greatly to our knowledge of birds and their habits, ornithology has suffered a most severe loss; and that the Cooper Club does hereby deplore his untimely death as a loss not only to the Club collectively, but to each individual member.

Recent field work at Palm Springs, Calif.,

by Messrs. Law and Miller, the Misses Swift and Atsatt, formed an interesting topic of informal discussion. Adjourned.—L. E. WYMAN, *Secretary*.

MAY.—The regular meeting of the Southern Division of the Cooper Ornithological Club was held at the Museum of History, Science and Art, May 25, 1916. President Miller was in the chair, and the following members present: Messrs. Daggett, Howell, Holland, Colburn, Brown, Little, Robertson, Law and Wyman, and Mrs. Law. Visitors were C. W. Chamberlain, of Boston, and Miss Marsh.

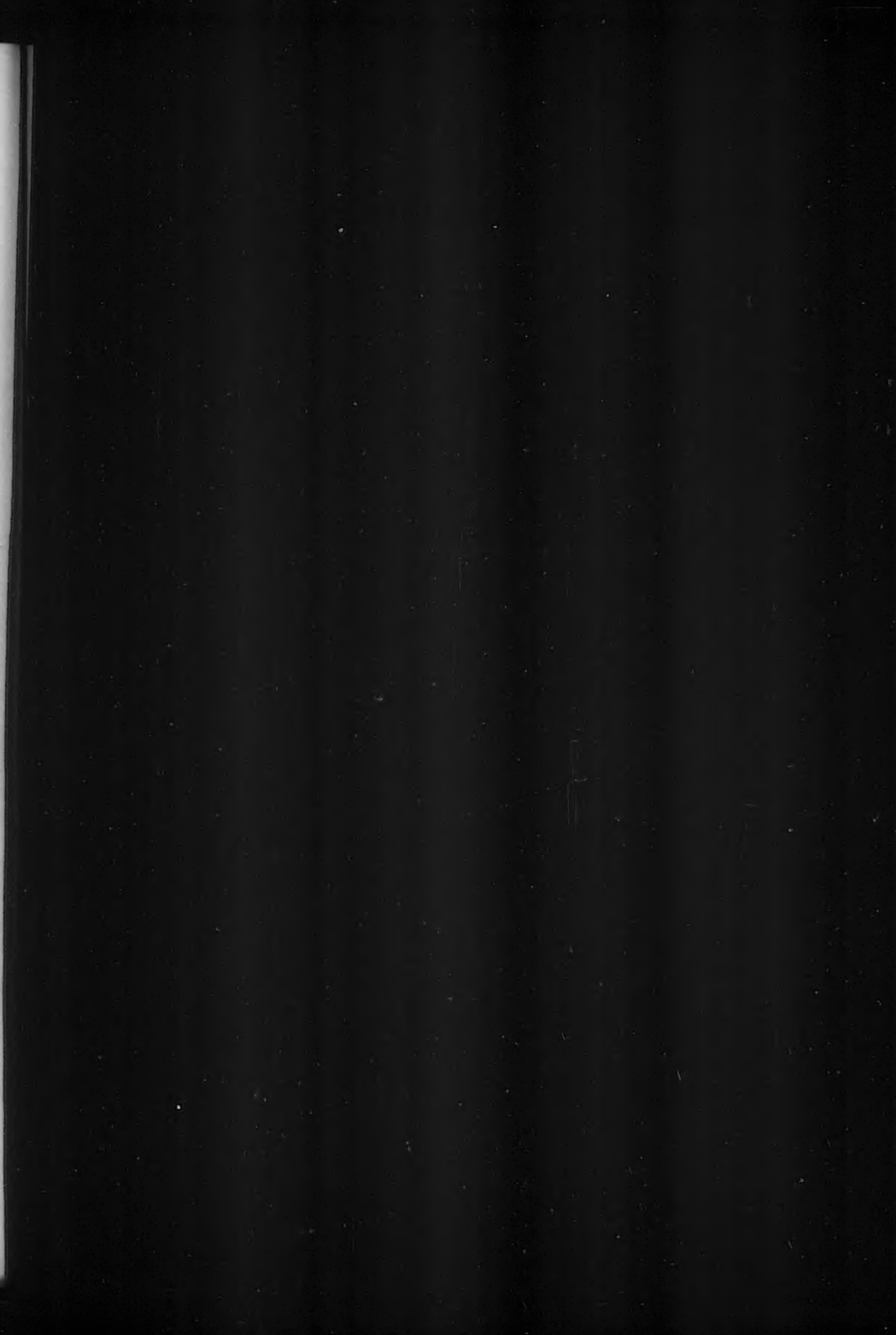
Minutes of the April meeting were read and approved, followed by reading of the minutes of the Northern Division. On motion of Mr. Robertson, seconded by Mr. Daggett, the Secretary was instructed to cast the electing ballot of the Club for the persons whose names were proposed at the April meeting.

There being no other business to come before the Club, the members listened to an interesting talk on ornithological conditions in the vicinity of Tucson, Arizona, by Mr. A. B. Howell, who returned some weeks ago from four months of field work in that locality. Messrs. Brown and Colburn spoke on recent field work at San Jacinto Lake, in Riverside County, where some interesting notes were made. Adjourned.—L. E. WYMAN, *Secretary*.

INTER-MOUNTAIN CHAPTER

APRIL.—The Inter-Mountain Chapter of the Cooper Ornithological Club met on the evening of April 12, 1916, at the office of Mr. D. Moore Lindsay, Boston Building, Salt Lake City, Utah. In the absence of both President and Vice-president, Mr. A. O. Treganza opened the meeting at 8:30 P. M. Members in attendance were: A. D. Boyle, J. Sugden, Jr. and Sr., Prof. J. H. Paul, Mr. and Mrs. A. O. Treganza, Mrs. J. A. Mullen, Miss Ella Jeremy and three visitors. Minutes of the March meeting read and approved.

Mrs. A. O. Treganza gave her observations and field data on the nesting ways and habits of the American Avocet. An open discussion followed in which many ideas were projected for the growth and development of the Chapter. Different phases of Ornithology—Scientific, Economic and Popular Ornithology—were also discussed. Meeting adjourned at 10:15 P. M.—MRS. A. O. TREGANZA, *Secretary*.



For Sale, Exchange and Want Column.—In this space members of the Cooper Club are allowed one notice in each issue free of charge.

Notices of over ten lines will be charged for at the rate of ten cents per line. Books and magazines can be offered for sale or exchange; bird skins and eggs can be offered in exchange, but *not for sale*. For this department address W. LEE CHAMBERS, *Eagle Rock, Los Angeles County, California*.

A CROWDED LIBRARY compels the sale of the following desirable books: Dugmore, *Wild Life and The Camera*, 4to, cloth, Illust., 1912, \$2.00; Knight, *Birds of Maine*, 4to, cloth, Illust., 1912, \$3.00; Dixon, *Our Rarer Birds*, 4to, Illust., 1888, \$1.50; Seton, *The Arctic Prairies*, 8vo, cloth, 1911, hfft. and cuts, \$2.00; Silloway, *Some Common Birds*, cloth, 1897, \$1.00; Bonhote, *Birds of Britain*, many beautiful colored plates, \$2.00; Kear-ton, *Our Rarer British Breeding Birds*, many delightful half-tones, cloth, 8vo, 1899 (cover faded), \$2.00; MacIlwraith, *Birds of Ontario*, 4to, cloth, 1894, \$1.00; Barrows, *Michigan Bird Life*, hfft., cloth, 1912, \$3.00; Zeledon, *List of the Birds of Costa Rica* (in Spanish), paper, 60c; and others.—REV. P. B. PEABODY, *Independence, Iowa*.

FOR SALE—Complete file of *Condor*, including original volume one, unbound. Make me an offer for the set.—H. T. CLIFTON, 509 E. Walnut St., Pasadena, Calif.

I WANT to hear from reliable collectors of eggs in sets. Am offering Bald Eagle, Carolina Junco, Cairns Warbler, Bewick Wren, Osprey, Seaside Sparrow and many others. Also a few copies of my book, "Birds of Virginia", for sets, lantern slides or cash.—HAROLD H. BAILEY, 319 5 $\frac{1}{4}$ St., Newport News, Virginia.

WANTED—29th and 30th Quarterly Report, Penn'a Board of Agriculture, March, 1886; containing "Birds of Chester County, Penna.", prepared by C. J. Pennock. I will pay any reasonable price.—F. L. BURNS, *Berwyn, Pa.*

FOR EXCHANGE—Very fine skins of Michigan waders and warblers for western or desirable sets.—J. CLAIRE WOOD, 179 17th Street, Detroit, Mich.

WANTED—Skins of Flammulated and Dwarf Screech owls in exchange for northern material such as Queen Charlotte Island Jay, Northwestern Sawwhet Owl, Richardson Grouse, Hepburn Leucosticte, Bohemian Waxwing, etc.—J. A. MUNRO, *Okanagan Landing, British Columbia, Canada*.

WANTED—Loomis's *California Water Birds* No. IV, for which I will pay any reasonable cash price.—W. E. CLYDE TODD, *Carnegie Museum, Pittsburgh, Pa.*

BLUE-BIRD—Published in co-operation with The Cleveland Bird-Lovers' Association, and devoted to *Bird Study and Conservation*; \$1.00 a year; 10 cents a copy; *Agents Wanted*. Address EDITOR BLUE-BIRD, 1010 Euclid Avenue, Cleveland, Ohio.

TO EXCHANGE—For bird skins not at present represented in my collection: *Coues Key to N. A. Birds*; *Ridgway's Manual of N. A. Birds*; U. S. Executive Document No. 91, *Explorations from Mississippi River to Pacific Coast, 1853-1856, Birds*, by Spencer F. Baird, 995 pages.

Over 50 odd copies of ornithological magazines to exchange as a lot for last four issues of *The Auk*. Viz: 15 copies *Oologist*, Vol. 7 to 13; 15 copies *Osprey*, Vol. 1 to 2; 11 copies *Nidologist*, Vol. 3 to 4; 10 copies *Museum*, Vol. 1 to 2.—GEO. G. CANTWELL, *Puyallup, Wash.*

WANTED.—Loomis's "California Water Birds" number V; "The Blue Bird," vol. 6, nos. 1 and 2, published at Cincinnati, Ohio, by Dr. Eugene Swope; Bulletin of the Cooper Ornithological Club, vol. I, any odd nos.—W. LEE CHAMBERS, *Eagle Rock, Los Angeles County, California*.

AVIFAUNA No. 11
A Distributional List of the Birds of California

By **JOSEPH GRINNELL**

217 pages and 3 maps *Published October 21, 1915*

An up-to-date, authoritative bird-list which should be in the hands of every active bird student in the western United States. It gives geographical ranges, with exact citations, and serves as a basis for all further distributional studies.

The Cooper Club has strained its resources to the limit to publish this latest number in its Avifauna series. The management urges quick response, so that a large sale will help meet this unusual expense. Each C. O. C. member should procure a copy at once.

Members of the C. O. C. may take the regular Club discount (50%) which applies to all Avifaunas.

Price, prepaid, \$3.00

W. LEE CHAMBERS, Business Manager
Eagle Rock, Los Angeles Co., Calif.

BIRDS---NESTS---EGGS

The Oologist

is one of the oldest publications in the United States devoted to these. It is now in its thirty-third year. If you are interested, subscribe now. Only Fifty Cents per year.

The Oologist,
Lacon, Ill.

BIRD-LORE

For October

IS A

Bird Club Number

with articles by Mr. Baynes of the Meriden Club, Dr. Kennedy of the Brush Hill Club, Mr. Floyd of the Milton Club, Mr. Ripley of the Hartford Club, Dr. Allen of the Ithaca Club, and others.

These reports contain information of the utmost value to organizers and conductors of Bird Clubs.

20 Cents a Copy
\$1.00 a Year

D. APPLETON & CO.
Harrisburg, Pa.

